

Sp. 11.06 (47)
24

FOR THE PEOPLE
FOR EDUCATION
FOR SCIENCE

LIBRARY
OF
THE AMERICAN MUSEUM
OF
NATURAL HISTORY

Bound
A M H



THE

Avicultural Magazine,

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN AND BRITISH BIRDS
IN FREEDOM AND CAPTIVITY.

EDITED BY
D. SETH-SMITH, F.Z.S., M.B.O.U.

NEW SERIES, VOL. I.
NOVEMBER, 1902, TO OCTOBER, 1903.

London :
R. H. PORTER,
7, PRINCES STREET, CAVENDISH SQUARE, W.

1903.

11/11/11
11/11/11
11/11/11

11/11/11-11/11/11

CONTENTS.

TITLE PAGE	..	..	..	..	..	..	i.
CONTENTS ..	..	..	..	..	..	..	iii.
COUNCIL'S REPORT	..	..	..	..	..	..	iv.
ALPHABETICAL LIST OF CONTRIBUTORS	..	..	..	..	..	..	ix.
LIST OF PLATES	..	..	..	..	..	..	xviii.
LIST OF ILLUSTRATIONS IN THE TEXT	..	..	..	..	..	..	xix.
ERRATA	..	..	..	..	..	..	xx.
LIST OF MEMBERS, OCTOBER, 1902	..	..	..	..	..	..	I
RULES OF THE AVICULTURAL SOCIETY	..	..	..	..	..	..	II
THE SOCIETY'S MEDAL	..	..	..	..	..	..	13
MAGAZINE ..	..	..	..	..	..	..	15
INDEX TO SUBJECTS	..	..	..	..	..	..	411
INDEX TO NESTING NOTES	..	..	..	..	..	..	430

REPORT OF THE COUNCIL FOR THE YEAR 1902-1903.

It is with much satisfaction that we present the ninth Annual Volume of our Magazine, the first of the New Series, to the Members of the Society, together with our Report for the Year: satisfaction, not because we have reached, nor even approached, either perfection or finality in improvements, but in the pleasing and incontrovertible fact that we are able to point to a steady advance all along the line.

The Avicultural Magazine, the great bond of union between the Members, has been substantially improved. With every number we have issued a coloured plate, most of them being of first-rate quality, and every one an original painting of a living bird, drawn specially for the Magazine. Only those who have had personal experience can form an idea of the immense labour and anxiety, and the heavy and *continuous** expense, which attach to this one single item in the formation of our Magazine. Most of the water-coloured drawings are by the skilled hands of Messrs. GRÖNVOLD and GOODCHILD, and we have also once more to thank the Rev. H. D. ASTLEY for his kind assistance in this connection. Neither must we fail to heartily thank those who allowed us to have their birds painted.

In addition to the coloured plates, we have published photographs and various interesting and valuable drawings and figures, notably those which accompanied Mr. PYCRAFT'S valuable paper "On the Topography of a Bird," which appeared in March.

The increase in Membership has been substantial, and may still be expected to steadily increase as the Society becomes more widely known; for it seems to be certain that there are numbers of aviculturists in this country and around the world who would be only too glad to join if they were aware of its existence and merits. Here is a way—by making the Society and its Magazine known—in which every Member can render

* As the Monthly Magazines are sold, more and more plates have to be coloured as circumstances may demand. —R. P.

valuable assistance. Our Magazine, month after month, finds its way to France, Italy, Switzerland, to Holland and Bulgaria, Portugal and Madeira; to various parts of India; to Egypt, South Africa and Natal; to the West Indies and the United States of America; to Tasmania, Western Australia and New South Wales. One Member studies its pages in his tent in the Sudan, with a grave laxity as regards attire and his feet in a bath, trying to feel cool with the thermometer standing at 122° Fahr. in the shade; while another, writing from Lokoja in Northern Nigeria, tells us how she looks forward to the coming of the *Avicultural Magazine*, and how she enjoys the lovely birds she sees about, and "If I can get any curious ones photographed I will send you copies." The thought that our Magazine thus goes to such distant and out-of-the-way parts of the earth, and gives instruction and pleasure to so many at home and abroad, ought to spur us on to produce a publication worthy of the Society and of our country.

* Various changes have been made in the constitution of the Society, with the view of strengthening it and making it more efficient; we may specially refer to the creation of the new post (honorary) of Correspondence Secretary, so kindly accepted and ably filled by Dr. A. G. BUTLER, Ph.D., &c., &c.

It has been felt that it is unfair to old and faithful Members that new comers, who have neither laboured nor contributed towards the measure of success now attained by the Society and its Magazine, should be able to step in and fully participate on the payment of so small a sum as 2/6. The Entrance Fee has consequently been raised to 10/6, a substantial but still quite a small enough increase under the circumstances.

The sale of the *Avicultural Magazine* to the general public, and business of a similar character, continue to show a steady increase, thanks to the energy of our publisher, the volume of business transacted being again well in advance of that of any previous year. The demand for back volumes still continues, with the result that Nos. 1, 3, and 4, as complete volumes, are now out of print.

The season has not been altogether a favourable one for

the breeding of birds in our aviaries; nevertheless some of the results obtained have been of considerable value. The breeding of the Indian Bustard-Quail or Greater Button-Quail, *Turnix tanki*, by Mr. D. SETH-SMITH, has taught the cabinet naturalist that his conclusions, when the aviculturist has not been taken into his counsels, are liable to be disturbed; and the most remarkable fact, hitherto totally unsuspected, which has now been brought to light, that the period of incubation extends for only about twelve days, could never have been discovered by all the Museums in the wide world. The timid Rain Quail has been bred by at least four of our Members, and the beautiful White-fronted Dove, *Leptoptila jamaicensis*, (and another species which we are taking steps to see and identify) by Miss R. ALDERSON. The former has likewise been bred by Mr. CASTLE SLOANE. But Mr. ST. QUINTIN leads the van. Not only has he bred and fully reared two Demoiselle Cranes, three young of the Ruff, one Pin-tailed Sand-Grouse, etc., etc., had young (5) from the Bearded Reedling and eggs from the Blue Thrush, but his Waxwings have hatched young in two nests; unfortunately none was reared.*

The Black-tailed or Rock Pebbler Parrakeet has been successfully bred by the Rev. B. HEMSWORTH and Mrs. JOHNSTONE, and Yellow-rumps hatched but not reared by Mr. FASEY; and the latter Member, and also Mr. D. SETH-SMITH, have each reared a brood of the charming Many-coloured Parrakeet. An illustrated account of the nesting of the Silver-eared Mesia in Mr. PHILLIPPS' aviary adds to our knowledge of this interesting species; and it is not unworthy of being placed on record that his pair of Bee-eaters, which were figured in April, 1902, and have been in his hands since the 20th September, 1901, are still alive and well.

Some of the above species have not hitherto been bred in the United Kingdom so far as is known, and the Society's Medal has been awarded in some cases, and doubtless will be awarded

* In the eighth edition of the Zoological Society's *List of the Animals*, there appears an entry which infers that five Waxwings were born in the Gardens on 10th June, 1881. Mr. Scherren, a Fellow of the Zoological and Member of our Society, most kindly investigated the matter, and wrote me as follows: "The Waxwings are all right. The entry in the List is an error. Mr. St. Quintin is first after all."—R.P.

in others as the accounts of the several occurrences are published.

- Amongst the birds of the year which have appeared may be mentioned the Varied Lorikeet, figured in July, which perhaps may be as disappointing as regards breeding as the Brown's Parrakeet (August, 1902) seems so far to have been, and a new Firefinch (*Lagonosticta niveiguttata*), to which reference was made at p. 179; a new Waxbill, too, *Estrilda rhodopyga*, has appeared in the Italian Bird-market (see pp. 249 and 405). An unusual number of the glorious Regent-bird which arrived in January, mostly immature specimens, and which are scattered about in our Members' aviaries and birdrooms, may give us an opportunity, which should not be neglected, of confirming or refuting the generally received opinion that the male takes only two years to attain the plumage of the adult.

The pair of exquisite Golden-shouldered Parrakeets, *Psephotus chrysopterygius*, referred to at page 300, remind us that the energetic and enthusiastic Member (Mrs. JOHNSTONE) who imported the male has also privately imported (see also page 345) various species from the Philippines, some quite new as living birds, and some perhaps rare even as cabinet specimens. However this may be, a few skins sent to us for identification shew that, among the living, there would appear to be two examples of the glorious Philippine Oriole, *Oriolus chinensis*, distinguishable at a glance from the Black-headed Oriole, *O. melanocephalus*, by the patch of bright yellow on the anterior part of the forehead, and from the Black-naped Oriole, *O. diffusus*, by the smallness of that patch; two of the vivid-green, ruby-eyed *Calornis panayensis*; a Mindanao Hornbill, *Penelopides affinis*; a pair of the Philippine race of the Bronze Fruit Pigeon, *Carpophaga ænea* var. *chalybura*; and last, but not least, a Racket-tailed Parrot from Mindanao, doubtless *Prioniturus discurus* (see page 408).

Thanks to the kind courtesy of another Lady-Member, we have been enabled to issue (April) a carefully drawn head of a Balearic Crowned-Crane, *Balearica pavonina*, shewing the correct face-markings of a living male, and the tiny wattles of this (in England) rare species, of which inaccurate and misleading plates

have been placed before the public, and which is so frequently confused with the much more common Cape Crowned-Crane, *B. regulatorum*. Three good specimens of the *latter* may be seen at the London Zoological Gardens, in their nice new home near the Insect House.

The finances of the Society are as satisfactory as is possible under the circumstances. In order that no good objects for our plates may be missed, and that we may always be ready with coloured plates, large sums of money have to be expended months before the plates are actually issued, and are consequently not available for paying current expenses. This causes inconvenience, and hinders the development of the Magazine, for it is occasionally found necessary to curtail the size of a monthly number and to reject kindly offers of photographs, etc. The nature of the work demands this, and it is unavoidable. Nevertheless our bills are always paid, our business is sound and healthy, and the Magazine has attained to a position far ahead of any it has held in the past, and may now be regarded by our Members as a valuable property; and it is for the Members generally, not for a limited few, to render assistance by increasing the Membership and thus increasing the means by which further improvements may be made in the Magazine—and also by contributing to its pages.

We have to thank Mr. ARTHUR GILL for the assistance he has kindly rendered to our Members by his *Post mortem* Reports.

The help rendered by the Officers of the Society and Members of the Executive Committee we most gratefully acknowledge.

(Signed)

DAVID SETH-SMITH.

ARTHUR GARDINER BUTLER.

J. LEWIS BONHOTE.

OSWALD ERNEST CRESSWELL.

W. H. ST. QUINTIN.

ROSIE ALDERSON.

C. D. FARRAR.

ARTHUR GILL.

JAMES B. HOUSDEN.

RUSSELL HUMPHRYS.

E. G. B. MEADE-WALDO.

WESLEY T. PAGE.

JOHN SERGEANT.

REGINALD PHILLIPPS.

ALPHABETICAL LIST OF CONTRIBUTORS.

The asterisk denotes in the Correspondence Columns.

	Page
ALDERSON, Miss R.	
*Whydalis Nesting; Goldfinch and Green Singing-finch	
Hybrids	71
Notes on Doves, Part (2) (1)	104
" " " 3	130
" " " 4	231
*The Plumed Ground-Dove	247
*Identity of Bird, and Dark-coloured Lavender Finch ..	253
Nesting of the White-fronted or Violet Dove, <i>Leptoptila jamaicensis</i>	393
ALSTON, G.	
*Peculiarities in the flight of birds	151
ARTHUR, C. P.	
*Gouldians	336
ASHFORD, Miss G.	
*Hybrids	147
*Grey Singing-finches Breeding.. .. .	252
*The Eggs of the Grey Singing-finch, etc.	374
ASTLEY, Rev. HUBERT D.	
The Hooded Siskin	47
*The Indian Roller and the Snake, or The Biter bit ..	72
*The Misuse of the Mealworm	77
The Blue Whistling Thrush	196
*The Sex of Pekin Nightingales	309
*German Bird-dealers and Fanciers	371
BALDELLI, La Contessa TOMMASI.	
*Instinct and Nest-building	221
*What Bird?	249
*Identification of Bird	302
*African Sparrows, etc.	305
*Nesting Notes.. .. .	406
BAMFORD, Miss.	
*Breeding Gouldian Finches, etc.	37
BENTLEY, D.	
*Nightingale not moulting	147

(1) For "Notes on Doves," Part I, see Vol. VIII., p. 219.

BLATHWAYT, Rev. F. L.

Rambles among the Wild Birds (No. 2.) (2) : A Visit to the Farne Islands	124
---	-----

BONHOTE, J. LEWIS.

Field Notes on some Bahama Birds— (3)	
Part 2	19
„ 3	54
„ 4	87
*Crows, Rooks, etc.	76
The Osprey	269
The Influence of Diet on the Avian Death-rate, Note on	356

BULL, H. J.

*Grey Parrot in Trouble	188
---------------------------------	-----

BURGESS, H. W.

*The Himalayan Blue-Pie; The Indian Roller	284
--	-----

BURTON, W.

*Grey Parrot biting its feathers	332
--	-----

BUTLER, Dr. A. G.

*Wintering Foreign Finches out-of-doors	41
The Spotted Wing	51
*Heating, etc. for the aviary	71
*Hardy Birds	77
*Liothrix: Redpoll: Hybrid	78
*Birds for Outdoor Aviary	79
Birds in Towns, Note on	100
*Naming Brazilian Birds	115
*Nightingale not Moulting	148
*Species of <i>Palæornis</i>	187
*Food for Goldfinches	187
*Grey Parrot in trouble.. .. .	188
*Mocking-birds.. .. .	189
*South African Birds	192
*Instinct and Nest-building	221
*Waxbills in a Cage	223
The Blue-bearded Jay	227
*Passerine Parrots and Nightingale	245
*Sexual Differences	246
*What Bird?	249
*Java Sparrows.. .. .	250
*The Nightingale	250
*Identity of Bird	253
More about the Spotted Wing	277
*Pectoral Finches, etc.	279
*Diamond Doves, etc.	280
The Lesser Rock-Sparrow	294
*Identification of Bird	303
*Lovebirds, etc. for cold Greenhouse	304
*African Sparrows, etc... .. .	305
*Cardinal ill	308, 309

(2) For No. I. see Vol. VIII., p. 251.

(3) For Part I. see Vol. VIII., p. 278.

BUTLER, Dr. A. G. (*continued.*)

*The Sex of Pekin Nightingales	310
Eggs of Serin-finches	327
- *Grey Parrot biting its feathers	332
*Brazilian Hangnest	333
*Yellow Sparrows	335
*Cordon Bleus nesting	338
The Influence of Diet on the Avian Death-rate, Note on	356
*Ornamentation of Mouth in Young Birds	370
*The Eggs of the Grey Singing-finch, etc.	374
Doves eating Insects and Worms	397
*Rare African Waxbills.. .. .	402
*Mynah and Cockatoo	405
*An interesting hybrid	405

CAMPBELL, A. J.

Honey-eaters	347
----------------------	-----

CASTLE SLOANE, C.

*Hardy Birds	77
*Purple-rumped Sun-bird; Green-billed Toucan.. .. .	247

CATLEUGH, W. T.

*Breeding Serin Finches	402
---------------------------------	-----

CAVANAGH, E. J.

*Longevity of a Cockatoo	371
----------------------------------	-----

CHARRINGTON, Mrs.

*Yellow-naped Amazon.. .. .	76
-----------------------------	----

CHASE, G. S.

A Half-day's bird-nesting with the Camera	292
---	-----

CREIGHTON, J. W.

*Nesting of the Ruby-throated Humming Bird	334
--	-----

CRESSWELL, O. E.

*Amhersts and Golden Pheasants	374
--	-----

CRESWELL, Dr. W. G.

The Influence of Diet on the Avian Death-rate	354
---	-----

DUNLEATH, The Lady.

*South African Birds	192
------------------------------	-----

DUTTON, Hon. and Rev. CANON.

*Wintering Cockatoos, etc.	76
*Yellow-naped Amazon.. .. .	76
*Grey Parrots	218
*Feather plucking, nibbling and eating	306

FARMBOROUGH, P. W.

On the Ringed Plover as an Aviary bird	26
*Improvements in the Magazine	45

xii. *Alphabetical List of Contributors.*

FARRAR, Rev. C. D.

*The Secretary and the Society's Medal	42
The Pied Shrike	69
*The new Medal Rule	81
A Modern Noah	100
*The Rev. C. D. Farrar's Record	407

FASEY, W. R.

*The Yellow-rumped Parrakeet	335
--------------------------------------	-----

FINN, F.

*Some notes on the Liothrix	340
*Rosy Pastors in London	370

FOTHERGILL, Major H.

*Wintering Cockatoos, etc.	75
*Demoiselle Cranes	333

GIBBINS, W. B.

*The Nightingale	250
--------------------------	-----

GILL, A.

*Nesting of Spice Birds	36
Post Mortem Examinations, 45, 82, 117, 156, 194, 225, 254, 285, 316, 347, 377, 409	

GREENE, Dr. W. T.

*British Bird Notes	37
*The Lettered Aracari, Orioles, etc.	75

GREGORY, Mrs.

*Burrowing Owl in a Fit	74
The Crowned Crane	159, 195
*Amhersts and Golden Pheasants	374

HAMILTON, Miss

*Ornamental Grass for birds: Javan Maja-finches	342
---	-----

HAMILTON, Mrs.

*The All-Green Parrot	185
-------------------------------	-----

HAMMOND, Hon. KATHERINE.

*Cardinal ill	308
-----------------------	-----

HAREWOOD, The Countess of.

*Java Sparrows.. .. .	249
-----------------------	-----

HARPER, E. W.

The Sex of the Bengal Pitta	29
Bird-catching in India	262

HAWKE, Hon. M. C.

*Passerine Parrots and Nightingale	245
*Aviary Notes	375

HENSLow, Rev. Prof.

*Instinct and Nest-building	192, 218
-------------------------------------	----------

HESELTON, H. C.

*Naming Brazilian Birds	115
*Green Bulbuls, (<i>Chloropsis</i>)	184

HINDLE, R. FRANKLIN.

*Curious nesting place of Budgerigars	29
---	----

HUMPHRYS, R.

The Rufous-bellied Niltava or Fairy Blue Chat ..	24
--	----

JOHNSTONE, Mrs.

*The Golden-shouldered Parrakeet	36
The Nesting of the Satin Bower-bird	63
*The Red-mantled Parrakeet	336
*Breeding Rock-Peplers and Barnard's Parrakeet ..	336

KEENE, Mrs.

*Ravens, Crows, Rooks, etc.	34
-------------------------------------	----

KEMP, R.

Cage Birds in Sierra Leone	212
------------------------------------	-----

KESTERMANN, H.

*Continental Bird Dealers	191
-----------------------------------	-----

KIRKWOOD, Mrs.

*Mynah and Cockatoo	405
-----------------------------	-----

LANGFORD, Miss

*Pekin Robins	152
-----------------------	-----

LILFORD, The Lady

*Mantell's Apteryx laying in Captivity	150
--	-----

MACKENZIE, O.

*Birds observed near Poolewe, N.B. during April, 1903 ..	302
--	-----

MARTIN, H. C.

The construction and fitting of small Aviaries	134
--	-----

MAYOR, C. M.

The Chiffchaff as a Cage-bird	206
---------------------------------------	-----

MEADE-WALDO, E. G. B.

The late rains and their effect on Bird-life	324
--	-----

xiv. *Alphabetical List of Contributors.*

MOERSCHELL, F.

*Jardine's Parrot	..	..	..	..	..	39
*Fresh Auts' Eggs	..	..	..	..	..	404

MORTIMER, Mrs.

*The Pin-tailed Whydah, <i>Vidua principalis</i>	186
--	----	----	----	----	-----

NORWOOD, E.

*Liothrix: Redpoll: hybrid	78
----------------------------	----	----	----	----	----

O'REILLY, N. S.

*Cardinal ill	308
---------------	----	----	----	----	-----

PAGE, WESLEY T.

The Himalayan Black Bulbul	..	..	..	..	209
*The Scarlet Ibis	..	..	..	..	337

PHILLIPPS, R.

The Blue Wren (4)	..	..	..	..	15
*The Golden-shouldered Parrakeet	..	..	..	..	30
*The Lettered Aracari, Orioles, etc.	..	..	..	..	33
*Breeding Gouldian Finches, etc.	..	..	..	..	38
*Jardine's Parrot	..	..	..	..	40
*The Secretary and the Society's Medal	..	..	..	..	42
*Green Bulbuls (<i>Chloropsis</i>)	..	..	..	73,	184
*Burrowing Owl in a fit	..	..	..	..	74
*The Misuse of the Mealworm	..	..	..	77, 217,	279
*A feather-picking Shama	..	..	..	..	80
The Yellow- or Golden-eyed Babbler	..	..	..	..	83
Birds in Towns, Note on	..	..	..	..	100
The Blue-breasted Waxbill	..	..	..	..	120
*Gouldians; Pin-tailed Noupareils; Californian Quails; Budgerigars	..	..	..	..	148
*Rosellas and Cockatiels	..	..	..	..	149
*Continental Bird Dealers	..	..	..	..	149
*Pekin Robins	..	..	..	..	152
*Yew and Box Trees	..	..	..	..	153
*The Pin-tailed Whydah, <i>Vidua principalis</i>	..	..	..	..	186
*Instinct and Nest-building	..	..	..	193,	218
The Blue Whistling Thrush, Note on	..	..	..	..	196
*Zosterops; Blossom-heads; Budgerigars	..	..	..	..	224
*Nesting of Greenfinches and Zebra Finches	..	..	..	..	248
*The Nightingale	..	..	..	..	250
The Black-headed Sibia	..	..	..	..	255
*The Little Owl	..	..	..	..	281
*Hemp Seed	..	..	..	..	282
*The Himalayan Blue-Pie	..	..	..	..	284
The Varied Lorikeet	..	..	..	..	287
*Birds observed near Poolewe, N.B., during April, 1903,	..	..	..	..	302
Note on	..	..	..	..	307
*Feather plucking, nibbling and eating	..	..	..	..	307
*Gouldians	..	..	..	..	337
*The Blue Thrush	..	..	..	..	339
The Influence of Diet on the Avian Death-rate, Note on	..	..	..	..	356
Waxwing nesting in a British Aviary	..	..	..	..	357
The Silver-eared Mesia	..	..	..	..	379

PORTER, G. C.

The Ruff	141
*The Misuse of the Mealworm	216, 278

PYCRAFT, W. P.

On the Topography of a Bird	160
-------------------------------------	-----

RABBICH, H. P.

*Diamond Doves, etc.	280
------------------------------	-----

RATHBORNE, H. B.

*The Blue Thrush	339
--------------------------	-----

RATHBORNE, Mrs.

*The Lettered Aracari, Orioles, etc.	32, 75
*Green Bulbuls (<i>Chloropsis</i>)	73
*Continental Bird Dealers	149
*The Plumed Ground-Dove	247

REID, C. S.

*Continental Bird Dealers	190
-----------------------------------	-----

RENSHAW, GRAHAM, M.B.

Notes on a private collection of living birds during 1900-02	168
--	-----

RICE, Capt. G.

*Gouldians; Pin-tailed Nonpareils; Californian Quails; Budgerigars	148
---	-----

ROTHERA, C. L.

*Waxbills in a Cage	223
*Nightingales, Passerine Parrakeets, etc.	281

RUDKIN, F. H.

*Rosellas and Cockatiels	149
*Species of <i>Palæornis</i>	187
*The Little Owl	281
*Hybrid Singing-finch, etc.	304
*Ornamentation of Mouth in Young Birds	370

ST. QUINTIN, W. H.

Tragopans in Captivity	95
*Breeding Birds in immature plumage	190
Waders in Captivity	202
*The Sparrowhawk and Long-horned Owl	307
*Demoiselle Cranes	333
Reeve (<i>Pavonella pugnax</i>) breeding in confinement	400
On breeding the Demoiselle Crane in captivity	390
*Flamingoes	404

SCLATER, P. L.

*Heron-breeding in Tunis	370
----------------------------------	-----

xvi. *Alphabetical List of Contributors.*

SCOTT, Prof. W. E. D.

Instinct in Song Birds: Method of breeding in hand-reared Robins	273
--	-----

SERGEANT, J.

Birds in Towns	97
------------------------	----

SETH-SMITH, D.

*The Secretary and the Society's Medal.. .. .	42
*The new Medal Rule	81, 116
Bird Notes from the Zoological Gardens 109, 144, 183, ..	215
*The Hooded Siskin	115
Editorial	119
Some Notes from the Crystal Palace Bird Show ..	178
*The Plumed Ground-Dove	248
*Passerine Parrakeets, etc.	281
*Nightingale off South Africa	283
*The Himalayan Blue-Pie: The Indian Roller ..	284
A Fine Collection of Parrakeets	299
On the breeding in captivity of <i>Turnix tanki</i> ..	317
*Yellow Sparrows	335
*The Red-mantled Parrakeet	336
*Passerine Parrakeets Nesting	338
*Flint and Shell-Grit for Birds	341
*Breeding the Many-coloured Parrakeet.. ..	342
The Racket-tailed Parrot	345, 480

SETH-SMITH, L. M.

The Black-breasted or Rain Quail	366
--	-----

SHARP, Miss M. D.

*Young birds feeding nestlings	39
--	----

SHEPHERD, Miss B.

*Passerine Parrakeets nesting	338
---------------------------------------	-----

SICH, H. L.

*British Bird Notes	79
-----------------------------	----

SPEED, H.

*Grey Parrots	185
-----------------------	-----

STANFORTH, Mrs.

*A feather-picking Shama	80
----------------------------------	----

SWAILES, G. C.

*The Black-breasted or Rain Quail	407
---	-----

THOMASSET, B. C.

*Prolific Redrumps	341
----------------------------	-----

TOWNSEND, S. M.

*Purple-rumped Sunbird	247
--------------------------------	-----

TWEEDIE, Capt.

*Nesting of Greenfinches and Zebra Finches 248

VIVIAN, Mrs.

*Pectoral Finches, etc. 279

*Cordon Bleus nesting 338

*Rare African Waxbills.. .. 402

WALLOP, Hon. F.

*Birds for outdoor Aviary 78

*Mocking-birds.. .. 189

WEST, Miss E. E.

*Yellow Sparrows 335

"WHITE DOE."

*A cross between a Mannikin and a Cape Canary .. 222

WIENER, A. F.

*The Hooded Siskin 115

WILLIAMS, Mrs.

*Zosterops; Blossom-heads; Budgerigars 224

WILMOT, Rev. R. H.

*Brazilian Hangnest 333

WORKMAN, W. H.

*Lovebirds, etc., for cold Greenhouse 304



LIST OF PLATES.

New Series, Volume I.

* Denotes a coloured plate.

To face page

*The Blue Wren, <i>Malurus cyaneus</i>	..	..	..	15
*Hooded Siskin, <i>Chrysomitris cucullata</i>	..	..	..	47
Adult Bahama Osprey, <i>Pandion carolinensis</i>	..	..	..	59
Nest of Bahama Osprey	..	..	..	60
*Yellow-eyed Babbler, <i>Pycorhis sinensis</i>	..	..	..	83
Colony of Flamingo Nests	..	..	..	87
Noddy Tern, <i>Anous stolidus</i> , and Sooty Tern, <i>Sterna fuliginosa</i>	..	..	..	90
Noddy Tern, <i>Anous stolidus</i>	..	..	..	92
Noddy and Sooty Terns perching	..	..	..	93
*Blue-breasted Waxbill, <i>Estrilda angolensis</i>	..	..	..	120
Blue-headed Turtle-Dove, <i>Turtur humilis</i>	..	..	..	130
Young Bleeding-heart Doves, <i>Phlogœnas luzonica</i>	..	..	..	132
*Balearic Crowned Crane, <i>Balearica pavonina</i>	..	..	..	159
Pycraft on the Topography of a Bird, Plate 1	..	..	..	160
" " " " " 2	..	..	..	164
" " " " " 3	..	..	..	166
* <i>Balearica pavonina</i>	..	..	..	195
Himalayan Whistling-Thrush, <i>Myiophonus temminckii</i>	..	..	..	196
*Blue-bearded Jay, <i>Cyanocorax cyanopogon</i>	..	..	..	227
Cream-coloured Courser and Algerian Grey Shrike	..	..	..	238
Young Fiscal Shrike, Cape Wagtail, and White-fronted Sand Plover	..	..	..	239
*Black-headed Sibia, <i>Malacias capistrata</i>	..	..	..	255
Indian Bird-catchers	..	..	..	262
*The Varied Lorikeet, <i>Ptilosclera versicolor</i>	..	..	..	287
Nests of Blackbird, Chaffinch and Moorhen	..	..	..	292
*Greater Button-Quail, <i>Turnix tanki</i>	..	..	..	317
*Racket-tailed Parrot, <i>Prioniturus platurus</i>	..	..	..	345
Honey-eaters feeding from the hand	..	..	..	347
Honey-eater's nest in Seedling Clematis	..	..	..	349
*Silver-eared Mesia, <i>Mesia argenteauris</i>	..	..	..	379
Nests and Egg of the Silver-eared Mesia	..	..	..	387
<i>Leptoptila jamaicensis</i>	..	..	..	393

LIST OF ILLUSTRATIONS IN THE TEXT

					PAGE.
Lyre Bird, <i>Menura superba</i>	..	..	..	..	110
King Penguins, <i>Aptenodytes pennanti</i>		..	..	..	112
Stanley Crane, <i>Anthropoides paradisea</i>	..		..	..	113
Construction and fitting of Small Aviaries, Figs. 1 and 2.					137
			.. 3 .. 4.		139
			.. 5 .. 6.		140
A characteristic attitude of <i>Colius striatus</i>			..	..	174
<i>Colius striatus</i> feeding .. ..	..	..	..	..	175
A characteristic attitude of <i>Colius striatus</i>			..	..	176
The Osprey, <i>Pandion carolinensis</i>	..		..	..	270
<i>Turnix tanki</i> , 4 days old (2 figures)	..		..	..	322
Yellow-tufted Honey-eater, <i>Plilotis auricomis</i>			..	..	351
Warty-faced Honey-eater, <i>Meliphaga phrygia</i>			..	..	352

ERRATA.

Page 73, line 9 from bottom :—

For *hodgsoni* read *hardwickii* (see p. 184).

Page 130 :—For *Turur tigrinus* read *Turtur tigrinus*.

Page 145, line 3 :—For *Therciceryx* read *Thereiceryx*.

Page 349, line 18 :—

For *snowy* read *showy*.

THE

Avicultural Society,

FOR THE STUDY OF
FOREIGN AND BRITISH BIRDS,
IN FREEDOM AND IN CAPTIVITY.

OFFICERS FOR THE YEAR 1902-3.

President :

THE HON. & REV. CANON DUTTON.

Vice-President :

MR. AUG. F. WIENER.

Council :

MISS R. ALDERSON.

THE REV. H. D. ASTLEY.

MR. J. L. BONHOTE.

DR. A. G. BUTLER.

MR. O. E. CRESSWELL.

THE REV. C. D. FARRAR.

MR. ARTHUR GILL.

MR. J. B. HOUSDEN.

MR. R. HUMPHRYS.

MR. E. G. B. MEADE-WALDO.

MR. W. T. PAGE.

MR. J. SERGEANT.

Executive Committee :

MR. J. L. BONHOTE.

DR. A. G. BUTLER.

MR. O. E. CRESSWELL.

Hon. Secretary :

MR. R. PHILLIPPS, 26, Cromwell Grove, West Kensington Park, London, W.

Hon. Treasurer :

MR. W. H. ST. QUINTIN.

Editor :

MR. D. SETH-SMITH, Glengarry, Canning Road, Addiscombe, Surrey.

Scrutmeer :

MR. H. W. MATHIAS.

Auditor :

MR. C. L. ROTHERA.

PRINTED BY
W. T. MOULTON & CO., 4. CHURCH STREET,
BRIGHTON, ENGLAND.

LIST OF MEMBERS.

(Corrected to October 20th, 1902.)

The date following the Member's name is the date of his election. "Orig. Mem." signifies that the Member joined the Society on its formation in October, 1894. The asterisk denotes that the Member belonged to the U. K. Foreign Cage Bird Society, either at the time of the amalgamation or at some time before.

Honorary Members.

GÜNTHER, ALBERT, M.A., M.D., F.R.S., F.Z.S., M.B.O.U.; 2, Lichfield Road, Kew Gardens. (Sept., 1902).

NEWTON, ALFRED, M.A., F.R.S., F.L.S., F.Z.S., M.B.O.U., Professor of Zoology and Comparative Anatomy in the University of Cambridge; Magdalene College, Cambridge. (Nov., 1901).

SCLATER, PHILIP LUTLEY, D.Sc., M.A., F.R.S., M.B.O.U., Secretary to the Zoological Society of London, 3, Hanover Square, W.; and Odiham Priory, Winchester, Hants. (Sept., 1902).

SHARPE, RICHARD BOWDLER, J.L.D., F.L.S., F.Z.S., M.B.O.U.; Assistant Keeper, Zoological Department, British Museum (Natural History), South Kensington, S.W. (Sept., 1902).

The Members.

ABRAHAM, FREDERICK M.; Blandford Cottage, Thames Ditton, and 7, Crown Office Row, Temple, E.C. (May, 1901).

ABRAHAM, Mrs.; 192, St. George Street, E. (May, 1895).

AGGS, HENRY GURNEY, F.Z.S.; Pippbrook, Dorking. (Oct., 1897).

AINLEY, JOHN WILLIAM; 16, Dalton Green, Dalton, Huddersfield. (June, 1895). *

ALDERSON, Miss R.; Park House, Worksop, Notts. (April, 1896).

ALLBUTT, Mrs.; 24, Park Square, Leeds. (Jan., 1897).

ALSTON, GAVIN; Yondercroft, Darvel, Ayrshire. (June, 1900).

ANNINGSON, Mrs.; Walt-ham-sal, Barton Road, Cambridge. (May, 1899).

APLIN, OLIVER VERNON, F.L.S., M.B.O.U.; Bloxham, Banbury. (Jan., 1902).

ARTHUR, CHARLES P.; Market Place, Melksham, Wilts. (Jan., 1895). *

ASHFORD, Miss; The Birks, Branksome Wood Road, Bournemouth. (Nov., 1896).

ASTLES, JOHN; 46, Ruskin Road, Crewe. (Jan., 1899).

- ASTLEY, The Rev. HUBERT DELAVAL, M.A., F.Z.S., M.B.O.U.; Benham Park, Newbury. (June, 1895). *
- ASTLEY, REGINALD B.; Acton Reynald, Shrewsbury. (July, 1902).
- BAKER, L. INGHAM; Larkenshaw, Chobham, Woking. (Dec., 1896).
- BALDELLI, La Contessa TOMMASI; 4, Via Silvio Pellico, Florence, Italy. (April, 1902).
- BAMFORD, Miss; The Leys, Kimbolton Road, Bedford. (June, 1895).
- BARBER, Mrs.; Milestone Cottage, Wickford, Essex. (Jan., 1899).
- BARCLAYWATSON, Miss F.; The Court House, Goring, Sussex. (July, 1902).
- BARNES, Mrs.; Bloxholm Rectory, Lincoln. (Nov., 1899).
- BATESON, The Hon. LILLA DE YARBURGH; Heslington, York. (Feb., 1900).
- BAXTER, Mrs.; Ivy House, Abbey Street, Burton-on-Trent. (Nov., 1897).
- BAYLDON, Mrs.; Oaklands, Dawlish. (Nov., 1902).
- BEAZLEY, ARTHUR; Wyndcroft, Enfield. (June, 1902).
- BELL, DAVID; Cawthorne, Barnsley. (Jan., 1902).
- BENTLEY, DAVID; 80, St. Hubert's Street, Great Harwood, Blackburn. (July, 1895).
- BERKELEY, The Rev. C. J. ROWLAND; Belton Vicarage, Uppingham. (Nov., 1902).
- BLAAUW, F. E., C.M.Z.S., M.B.O.U.; Gooilust, 'sGraveland, Hilversum, Holland. (Nov., 1901).
- BLACK, STANLEY O.; Minden, Hereford Road, Southsea. (April, 1899).
- BLATHWAYT, A. P.; Frogmore, Watford, Herts. (Jan., 1895).
- BLATHWAYT, The Rev. FRANCIS LINLEY; 173, Monks' Road, Lincoln. (Jan., 1902).
- BONHOTE, JOHN LEWIS, M.A., F.Z.S., M.B.O.U.; Ditton Hall, Fen Ditton, Cambridge. (Dec., 1894).
- BOOTHROYD, ALFRED E.; 27, Duke Street, Southport. (Sept., 1901).
- BOUGHTON-LEIGH, HENRY; Brownsover Hall, Rugby. (May, 1900).
- BOUSKILL, G. E.; Romanihurst, Bramall Lane, Stockport. (April, 1896).
- BOWES, JOHN, J.P., F.Z.S.; 7, Marine Terrace, Herne Bay. (Oct., 1900).
- BOYD, HAROLD; Barton House, Didsbury, Manchester. (March, 1902).
- BRADSHAW-ISHERWOOD, Mrs.; Grosvenor House, 1, Grosvenor Villas, Ramsgate. (June, 1902).
- BRAMPTON, Miss E.; The Moat House, Brentwood, Essex. (Feb., 1898).
- BRELSFORD, JOHN; 75, Wellington Road North, Stockport. (Oct., 1902).
- BROOKES, EDWARD J.; Inglesham, Sutton Coldfield. (Feb., 1899).
- BROOKSBANK, Mrs.; Gate Helmsley House, York. (May, 1898).
- BURGE, SAMUEL; Ivy Cottage, Fairford. (Nov., 1896).
- BURGESS, H. W.; High Street, Bushey, Herts. (Nov., 1900).
- BURTON, WALTER; Mooresfort, East Sheen, Mortlake, S.W. (Dec., 1901).
- BUTLER, ARTHUR G., Ph.D., F.L.S., F.Z.S.; 124, Beckenham Road, Beckenham, Kent. (Orig. Mem.). *
- CAMPS, H. T. T., F.Z.S.; Linden House, Haddenham, Isle of Ely. (Orig. Mem.). *
- CARLYON, Mrs.; Brockenhurst, Hants. (Dec., 1900).

- CARNEGIE, The Lady; Crimonmogate, Lomnay, Aberdeenshire. (Feb., 1901).
- CARPENTER, The Hon. Mrs.; Kiplin, Northallerton. (Feb., 1898).
- CARPMAN, Miss; The Ivies, St. Julian's Farm Road, West Norwood. (April, 1896).
- CARRICK, GEORGE; Stratford, Argyle Road, Saltcoats, N.B. (March, 1898).
- CARTER, WALTER L.; Summergate, Parkinson Lane, Halifax. (June, 1895). *
- CASTELLAN, VICTOR; Hare Hall, Romford, Essex. (Orig. Mem.).
- CASTLE-SLOANE, C., F.Z.S.; Oat Hall, Crawley, Sussex. (March, 1900).
- CATLEUGH, W. T.; Clyffe, Richmond Wood Road, Bournemouth. (Dec., 1894).
- CECIL, The Lady WILLIAM; Hunmanby Hall, Filey, Yorkshire. (Feb., 1901).
- CHAPMAN, P. GODFREY; 21, Lennox Gardens, S.W. (Oct., 1898).
- CHARRINGTON, Mrs. MOWBRAY; The Warren, Hever, Edenbridge, Kent. (May, 1896).
- CHATWIN, HERBERT F.; 23, King Street, Nottingham. (Jan., 1902).
- CHAWNER, Miss; Forest Bank, Lyndhurst, Hants. (July, 1899).
- CHIOZZA, L. G.; Casa Cara, Beechwood Avenue, Oatlands, Weybridge. (Oct., 1902).
- CHRISTIE, AUGUSTUS L.; Tapeley Park, Instow, North Devon. (June, 1902).
- CLAYTON, C. H.; 43, Albion Street, Wakefield. (Aug., 1901).
- COLTON, R.; 244, Bramall Lane, Sheffield. (July, 1901).
- CONNELL, Mrs. KNATCHBULL; The Orchard, Brockenhurst, Hants. (Nov., 1897).
- CONSTABLE, The Rev. W. J.; Uppingham School, Uppingham. (Sept., 1901).
- CONYNGHAM, The Dowager Marchioness; 36, Belgrave Square, S.W. (Jan., 1900).
- COOPER, JAMES; Killerby Hall, Scarborough. (Orig. Mem.).
- COTTERELL, The Lady EVELYN; Garnons, Hereford. (Oct., 1902).
- COXWELL-ROGERS, Miss; Park Gate, Cheltenham. (Dec., 1895).
- CREIGHTON, R.; Likonia House, Belle Vue Street, Filey, Yorks. (Sept., 1897).
- CRESSWELL, O. ERNEST, M.A., J.P.; Morney Cross, near Hereford. (Orig. Mem.).
- CRESWELL, WILLIAM GEORGE, M.D.; Eden Lodge, Kingston-on-Thames. (June, 1900).
- CRONKSHAW, J.; Mansion House, Plantation Street, Accrington. (Dec., 1894).
- CUMMINGS, A.; 16, Promenade Villas, Cheltenham. (Dec., 1896).
- CUNLIFFE, Mrs.; 20, Eaton Gardens, Hove, Brighton. (May, 1899).
- CUSHNY, CHARLES; Pain's Hill, Cobham, Surrey. (June, 1896).
- CUTHBERTSON, E. H.; Bushey House, Bushey, Herts. (June, 1902).
- DELL, CHARLES; 9, High Street, Harlesden, N.W. (July, 1900).
- DE MANCHA, José M.; 1, Gledhow Gardens, Earl's Court, S.W. (Oct., 1902).
- DENT, C. H.; Queen's Hotel, Penzance. (Feb., 1899).

List of Members.

- DE TABLEY. The Lady; Berry Court, Bournemouth. (June, 1902).
- DE TAINTEGNIES, La Baronne LE CLÉMENT; Cleveland, Minehead, Somerset. (Feb., 1902).
- DEVAS. GEORGE; Hartfield, Hayes, Kent. (Oct., 1898).
- DEWAR, J. F.; 2, St. Patrick's Square, Edinburgh. (Orig. Mem.).
- DOUGLAS. WILLIAM C., F.Z.S.; 9, Trebovir Road, Earl's Court, S.W. (Nov., 1900).
- DRUITT, C. F.; 2, Brighton Villas, London Road, Alvaston, Derby. (Jan., 1899).
- DUNLEATH. The Lady; Ballywalter Park, Ballywalter, co. Down, Ireland. (Aug., 1897).
- DUNSANY, The Lady; Dunstail Priory, Shoreham-by-Sevenoaks, Kent. (Feb., 1902).
- DUTTON, The Hon. and Rev. Canon; Bibury, Fairford. (Orig. Mem.).
- EDWARDS, G.; 217, Waterloo Road, S.E. (Aug., 1902).
- ELLIS, STEPHEN H.; 34, York Street, Wakefield. (June, 1902).
- ELWELL, JAMES E.; Bar Cottage, Beverley. (May, 1901).
- EZRA, DAVID; 59, Ezra Street, Calcutta. (June, 1902).
- FARMBOROUGH, PERCY W., F.Z.S.; Lower Edmonton. (June, 1896). *
- FARRAR, The Rev. C. D.; Micklesfield Vicarage, Leeds. (Jan., 1895).
- FASEY, WILLIAM R.; The Oaks, Holly Bush Hill, Snaresbrook, N.E. (May, 1902).
- FEILDING, The Lady LOUISA; Broome Park, Betchworth, Surrey. (July, 1902).
- FIELD, GEORGE; Sorrento, Staplehurst, Kent. (March, 1900).
- FIFE, Mrs.; Langton Hall, Northallerton. (Oct., 1898).
- FINN, FRANK, B.A., F.Z.S., M.B.O.U.; Indian Museum, Calcutta. (March, 1895).
- FLETCHER, The Rev. J. C. B., M.A.; Mundham Vicarage, Chichester. (April, 1902).
- FOSTER, WM. HILL; 164, Portland Street, Southport. (Feb., 1902).
- FOTHERGILL, Major HENRY, J.P.; Copt Hall, Hawkhurst. (April, 1900).
- FOWLER, CHARLES; 26, Broad Street, Blaenavon. (Dec., 1894).
- FOX, C. J.; 35, Addington Street, Ramsgate. (May, 1897).
- FRASER, Mrs.; 19, Rivers Street, Bath. (April, 1902).
- FREEMAN, A. C.; Fern House, Thrapston. (April, 1902).
- FROSTICK, JOHN; 18, Temperley Road, Balham, S.W. (Orig. Mem.). *
- GIBBINS, WILLIAM B.; Ettington, Stratford-on-Avon. (June, 1895). *
- GILBEY, Mrs.; 28, Seymour Street, Portman Square, W. (July, 1902).
- GILL, ARTHUR; Veterinary Establishment, Bexley Heath, Kent. (Dec., 1899).
- GODDARD, Miss; Westrop House, Highworth, Swindon, Wilts. (Jan., 1902).
- GODDARD, H. E.; 5, Latchett Road, South Woodford, Essex. (Feb., 1899).
- GOODCHILD, HERBERT, M.B.O.U.; 119, Gloucester Road, Regent's Park, N.W. (Oct., 1902).

- GOODFELLOW, WALTER, F.Z.S., M.B.O.U.; Rosedale, Broadstone, Dorset. (June, 1897).
- GORTER, Mrs.; The Delta, Walmer, Kent. (Nov., 1901).
- GOSLING, Mrs.; Manor House, Waltham St. Lawrence, Twyford, Berks. (March, 1900).
- GRACE, GUSTAVE; 24, Wood Street, Wakefield. (March, 1896).
- GRASETT, EDWARD DOUGLAS; 7, Turner Street, Upper King Street, Southfields, Leicester. (Dec., 1901).
- GREEN, ALBERT; Southfield House, East Garston, Lambourn, Berks. (Feb., 1898).
- GREENE, W. T., M.A., M.D.; 282, Portobello Road, North Kensington, W. (Dec., 1901).
- GREGORY, AUBREY; Seetarampore, E.I.R., India. (Nov., 1902).
- GREGORY, MRS.; Melville, Parkstone, Dorset. (Dec., 1901).
- GRIFFITHS, M. E.; Fernside, Childer Road, Stowmarket. (May, 1902).
- GRÖNVOLD, HENRIK; 26, Albert Bridge Road, Battersea Park, S.W. (Nov., 1902).
- GROSER, F. S.; 2, Belvedere Road, Alipore, Calcutta. (Sept., 1902).
- HAMILTON, Madame; Les Deux Parzes, Champéry (Valais), Switzerland. (Nov., 1902).
- HAMILTON, Miss; 48, Bryanston Street, Portman Square, W. (April, 1902).
- HAMILTON, Mrs.; Bannerdown House, Batheaston, Bath. (Feb., 1895).
- HAMMOND, The Hon. KATHERINE; 25, Eaton Place, S. W. (Aug., 1901).
- HARBOTTLE, Miss M.; 12, Victoria Place, Budleigh Salterton, Devon. (Dec., 1895).
- HARDINGE, The Hon. Lady; Petite Loquette, Hyères, Var, France. (Nov., 1896).
- HARPER, Miss; West Borough, Wimborne, Dorset. (March, 1902).
- HARPER, EDMUND WILLIAM, F.Z.S., M.B.O.U.; c/o Messrs. Thomas Cook & Son, Bombay, India. (Feb., 1901).
- HARPER, FREDERICK WM.; 5, Bentinck Villas, Stanley Road, Wakefield. (May, 1902).
- HARRIS, FRANK, F.R.H.S.; Vernon Park, Stockport. (Oct., 1902).
- HARRISON, Miss; Waterhouse, Bath. (Sept., 1895).
- HARTLEY, Mrs.; St. Helen's Lodge, Hastings. (April, 1897).
- HASLOPE, LANCELOTH; Elm Brae, Torquay. (June, 1902).
- HAWKE, The Hon. M. C.; Wighill Park, Tadcaster. (Nov., 1900).
- HAWKINS, L. W.; Estrilda, New Clive Road, West Dulwich, S.E. (Jan., 1899).
- HEATH, FRANCIS GEORGE; Underwood, Kew Gardens, Surrey. (Sept., 1902).
- HEMSWORTH, The Rev. B., M.A., J.P.; Monk Fryston Hall, South Milford. Yorks. (June, 1901).
- HESELTON, H. C.; 299, Westminster Road, Liverpool. (Dec., 1899).
- HEWSON, GEORGE; A.M., I.C.E.; Glendoone, Harehills Avenue, Leeds. (Nov., 1902).
- HILL, W. T.; 337, Great Cheetham Street, Manchester. (Dec., 1900).
- HINCKES, R. T.; Foxley, Hereford. (Feb., 1899).

- HINCKS, J. W. R.; Stack House, Uppingham Road, Leicester. (Oct., 1899).
- HINDLE, FREDERICK G.; Thorncliffe, Darwen. (May, 1902).
- HINDLE, R. PRANKLIN; 44, Grosvenor Road, Birkdale, Southport. (Sept., 1898).
- HOPSON, F. C.; Northbrook Street, Newbury. (March, 1897).
- HORSBURGH, Capt. BOYD R., A.S.C.; 4, Richmond Hill, Bath. (Jan., 1898).
- HORTON, LEONARD W.; Longfield, Bescot, Walsall. (Feb. 1902).
- HOUGH, HAROLD; Wellington Road South, Stockport. (Oct., 1902).
- HOULTON, CHARLES; Laburnum House, Denton's Green, St. Helen's, Lanc. (Feb. 1897).
- HOUSDEN, J. B.; Brooklyn, Cator Road, Sydenham. (Orig. Mem.).
- HOWARD, The Lady VICTORIA; Charlton Cottage, Malmesbury. (Oct., 1899).
- HOWMAN, Miss; Sherwood, Essex Grove, Upper Norwood. (March, 1897).
- HUGHES, Mrs.; Fairhaven, Preston Drive, Brighton. (April, 1895).
- HUMPHRYS, RUSSELL; Lingdale, Bickley, Kent. (April, 1896).
- HUSBAND, Miss; Clifton View, York. (Feb., 1896).
- HUTT, HENRY T.; 24, Cockspur Street, London, S.W. (Nov., 1896).
- INCHQUIN, The Lady; Moor Park, Ludlow. (Nov., 1897).
- INGLIS, CHAS. M.; Baghownie Factory, Hatauri Post Office, viâ Hya Ghât, Tirhoot State Railway, India. (Sept., 1902).
- JENNISON, GEORGE; Davonport Park, Stockport. (Sept., 1897).
- JOHNSTONE, Mrs.; Rougham Hall, Bury St. Edmunds. (May, 1900).
- KEENE, Mrs.; Sandlea, Abbotsham Road, Bideford, N. Devon. (Feb., 1897).
- KEYTEL, CASPER; Brighton Castle, Mouille Point, Cape Town, South Africa. (June, 1902).
- LAMBERT, FRANK F.; Langholm, Beverley. (June, 1900).
- LANCASTER, Mrs.; 1, Victoria Terrace, Walsall. (Aug., 1897).
- LANDLESS, W.; Portland Villa, Waterloo Road, Ashton-on-Ribble, Preston. (Dec., 1896).
- LANGFORD, Miss; Fairlea, Upperton Road, Eastbourne. (Nov., 1902).
- LASCELLES, The Hon. GERALD, F.Z.S., M.B.O.U.; The King's House, Lyndhurst. (Oct., 1896).
- LATTEY, Miss; Hollydene, Allensbank Road, Cardiff. (Jan., 1902).
- LEITE, ARSENIO PINTO, 61, Ducie Grove, Whitworth Park, Manchester. (July, 1902).
- LENNIE, J. C.; Rosepark, Trinity Road, Edinburgh. (Orig. Mem.). *
- LEWIS, The Rev. T. C.; Dodbrooke Rectory, Kingsbridge, South Devon. (Jan., 1902).
- LILFORD, The Lady; Lilford Hall, Oundle, Northamptonshire. (Jan., 1898).
- LITTLE, ERNEST W.; 16, Great Quebec Street, Montagu Square, W. (Nov., 1901).
- LOWE, SAMUEL; 14, Banks Lane, Stockport. (Oct., 1902).

- LYNCH, CYRIL; 45, Rua Dr. Corrêa, Cattete, Rio de Janeiro, Brazil.
(April, 1897).
- LYON, Miss; Harwood, Horsham. (Nov., 1894).
- MCLAUGHLIN, Lieut.-Col. H. I., R.A.M.C.; The Neuk, Bridge of Teith,
Dounie, Perthshire. (Aug., 1902).
- MAITLAND, MRS. KEITH; 2, Douglas Gardens, Edinburgh. (July, 1900).
- MARTIN, H. C.; 141, Victoria Road, Old Charlton, Kent. (Jan., 1897).
- MASON, BAZLINTON; 23, North Parade, Lincoln. (Nov., 1902).
- MATHIAS, H. W.; Doone Cottage, Thames Ditton, Surrey. (March, 1900).
- MAXWELL, C. T.; South Lawn, 24, Acre Lane, Brixton, S.W. (March, 1896).
- MEADE-WALDO, E. G. B., F.Z.S., M.B.O.U.; Stonewall Park, Edenbridge,
Kent. (Jan., 1895).
- METCALFE, Mrs.; Gloucester House, Stonebridge Park, Willesden, N.W.
(April, 1901).
- MICHELL, Mrs.; Crakehall, Bedale. (Sept., 1898).
- MIDDLEBROOK, J. E.; Hazeldene, Manning Road, Berea, Durban, Natal.
(June, 1902).
- MILLER, Lady; The Knole, Bournemouth. (July, 1899).
- MOERSCHELL, F.; Imperial Hotel, Malvern. (June, 1895).
- MORSHEAD, Lady; Forest Lodge, Binfield, Bracknell, Berks. (Dec., 1894).*
- MORTIMER, Mrs.; Wigmore, Holmwood, Surrey. (Orig. Mem.).*
- MUMFORD, J. J.; The Poplars, Kettering. (Dec., 1900).
- MYLAN, JAS. GEORGE, M.D.; Carlisle House, Grimesthorpe, Sheffield.
(Dec., 1901).
- NEWMAN, T. H., F.Z.S.; 20, Montpelier Square, South Kensington, S.W.
(May, 1900).
- NICHOLSON, ALFRED E.; Emlinville, Coltbridge Gardens, Edinburgh.
(Oct. 1896).*
- NOBLE, Mrs.; Park Place, Henley-on-Thames. (Oct., 1900).
- NORMAN, Miss; Royal Hospital, Chelsea, S.W. (Jan., 1902).
- NORWOOD, EILEE; York. (Aug., 1901).
- Oakey, W.; 46, High Street, Leicester. (March, 1896).*
- OATES, F. W.; White House Farm, New Leeds, Leeds. (Oct., 1897).
- OGILVY, HENRY S. T. HAMILTON; Biel, Prestonkirk, N.B. (March, 1900).
- O'REILLY, NICHOLAS S.; 9, Royal Crescent, Ramsgate. (Dec., 1894).
- OSBALDESTON, W.; 3, Titlie Barn Street, Preston. (June, 1895).*
- PAGE, WESLEY, T., F.Z.S.; 6, Rylett Crescent, Shepherd's Bush, W.
(May, 1897).
- PARKER, WM. EATON; Beacon Farm, Frodsham, Warrington. (Aug., 1900).
- PARSONS, Miss; Birdsall Grange, York. (Jan., 1902).
- PEELE, R. de C.; The Church House, Ashford, Ludlow. (July, 1902).
- PERCIVAL, WALTER GILBEY; Somerset Court, Brent Knoll, Somerset.
(Feb., 1902).
- PERRIER, Mrs. LUMLEY; Saville House, Twickenham. (Feb., 1899).

- PERRING, C. S. R.; 144a, Queen Victoria Street, E.C. (Sept., 1895).
- PERRYMAN, C. W.; Bifrons, Farnborough, Hants. (March, 1902).
- PHILLIPPS, NOEL; 21, Addison Gardens, Kensington, W. (Nov., 1901).
- PHILLIPPS, REGINALD; 26, Cromwell Grove, West Kensington Park, W. (Orig. Mem.). *
- PHILLIPPS, Mrs.; 26, Cromwell Grove, West Kensington Park, W. (Orig. Mem.).
- PHILPOT, WM. R.; 8, Cheselden Road, Guildford. (July, 1902).
- PICARD, HUGH K.; 10, Sandwell Crescent, W. Hampstead, N.W. (March, 1902).
- PIGOT, Lady; Warfield Grove, Bracknell, Berks. (May, 1902).
- PITT, Mrs.; The Nest, Torquay. (Dec., 1894).
- PLOMLEY, J. F., M.D.; Knightrider House, Maidstone. (Feb., 1898).
- PORTER, G. C.; 38, Mill Street, Bedford. (Dec., 1901).
- POWIS, The Earl of; 45, Berkeley Square, W.; and Powis Castle, Welshpool. (April, 1902).
- PRICE, ATHELSTAN, E., M.B.O.U.; Bridge Cottage, Broxbourne, Herts. (Aug., 1902).
- PRIDHAM, Mrs.; Windsor Villa, Mannamead, Plymouth. (May, 1902).
- RATHBORNE, HENRY B.; Dunsinea House, Phoenix Park, Dublin. (May, 1901).
- RATHBORNE, Mrs.; Dunsinea House, Phoenix Park, Dublin. (Nov., 1902).
- REAY, J. H. A.; 7, Rosemount, Wallington, Surrey. (April, 1898).
- REID, Mrs.; Funchal, Madeira. (Feb., 1895).
- RENAUT, W. E.; 15, Grafton Square, Clapham, S.W. (March, 1902).
- RICE, Captain G.; Clayquhat, Blairgowrie, N.B. (May, 1902).
- RICHARD, E.; Hotel Metropole, Brighton. (Orig. Mem.).
- ROBERTS, NORMAN B.; West Retford Cottage, Retford. (Feb., 1898).
- ROBERTSON, Mrs.; Bishop's Tachbrook, Leamington. (Jan., 1900).
- ROTCH, CLAUDE D.; 3, Beach Lawn, Waterloo, Liverpool. (June, 1897).
- ROTHERA, CHAS. J., B.A.; Hazelwood, Forest Grove, Nottingham. (July, 1895).
- ROTHSCHILD, The Hon. L. WALTER, M.P., D.Sc., F.Z.S., M.B.O.U.; Tring Park, Herts. (Jan., 1900).
- RUDKIN, F. H.; Belton, Uppingham. (Oct., 1902).
- RYCROFT, MARK E.; 8, Park Street, Wakefield. (Jan., 1902).
- ST. QUINTIN, WILLIAM HERBERT, F.Z.S., M.B.O.U.; Scampston Hall, Rillington, York. (Orig. Mem.).
- ST. QUINTIN, Miss; Scampston Hall, Rillington, York. (Jan., 1902).
- SALT, Dr. E. G.; 59, George Square, Edinburgh. (July, 1895).
- SALTER, ALBERT J.; Thame, Oxon. (March, 1902).
- SAN GERMANO è CALABRITTO, La Duchessa di; 10, Emperor's Gate, S.W. (Oct., 1902).
- SAVAGE, A.; 3, Rue Bihorel, Bihorel, Rouen, Seine Inférieure, France. (April, 1895).
- SAVEGE, GEORGE, M.D.; 24, Railway Street, Beverley. (Oct., 1896).

- SCHWEDER, PAUL E.; Courtlands, Goring—Worthing, Sussex. (Nov., 1902).
- SCOTT, Professor W. E. D., Curator of Ornithology; Princeton Museum, Princeton, N.J., United States of America. (June, 1900).
- SERGEANT, JOHN; 10, London Street, Southport. (Orig. Mem.).*
- SETH-SMITH, DAVID, F.Z.S., M.B.O.U.; Glengarry, 14, Canning Road, Addiscombe, Surrey. (Dec., 1894).
- SETH-SMITH, LESLIE M., B.A.; Alleyne, Caterham Valley, Surrey. (July, 1902).
- SHARP, Miss; Spring Gardens, Ringwood, Hants. (Orig. Mem.).
- SHEPHERD, Miss; The Den, Walton-on-Thames. (April, 1901).
- SHERBROOKE, Mrs.; Keldholme Priory, Kirby Moorside, Yorks. (March, 1897).
- SHERSTON, Mrs. MAXWELL; Alford, Castle Cary, Somerset. (May, 1902).
- SICH, HERBERT LEONARD; c/o H. C. HOLMAN, Esq., Lydfords, East Hoathly, Sussex. (Feb., 1902).
- SIMPSON, ARCHIBALD; 98, Tempest Road, Beeston Hill, Leeds. (Feb., 1901).
- SLATER, ARTHUR A.; Prescott Road, St. Helen's. (Nov., 1894).
- SMART, JOHN; 12, Royal Crescent, Edinburgh. (Nov., 1894).
- SMITH, H. B.; Grangefield, Park Road South, Birkenhead. (June, 1895).*
- SMITHWICK, Capt. W. F.; Youghal House, Nenagh, Ireland. (Nov., 1902).
- SPEED, HEDLEY; 12, Victoria Park, Bangor, Wales. (Nov., 1900).
- STANSFELD, JOHN; Dunninald, Montrose, N.B. (Dec., 1896).
- STANYFORTH, Mrs.; Kirk Hammerton Hall, York. (Nov., 1897).
- STEVENS, W. E.; Punchbowl Hotel, Lowther Street, York. (June, 1899).
- STURTON-JOHNSON, Miss; Orotava House, Ore, Hastings. (May, 1897).
- SUTTON, LADY; Benham Park, Newbury. (Dec., 1901).
- SWAILES, GEORGE C.; Beverley, Yorks. (June, 1895).
- SWAN, J. A.; 87, Lower Kennington Lane, S.E. (June, 1902).
- SWAYSLAND, WALTER; 47, Queen's Road, Brighton. (Orig. Mem.).*
- SWIFT, DONALD; 58, Avenue Road, Crouch End, N. (Dec., 1898).
- SWINFEN-BROWN, Mrs.; Swinfen Hall, Lichfield. (Feb., 1898).
- TATE, Miss; Allerburn, Alnwick. (May, 1900).
- TATE, ALAN; 182, South Street, The Park, Sheffield. (June, 1897).
- TAYLOR, J. B.; Sherfield Manor, Basingstoke, Hants. (Aug., 1902).
- TERRY, Major HORACE A., M.B.O.U. (late Oxfordshire Light Infantry); The Lodge, Upper Halliford, Shepperton. (Oct., 1902).
- THOM, A. A.; Birkacre House, Birkacre, Chorley. (June, 1895).*
- THOMAS, HENRY; The Vineries, Boroughbridge, York. (Jan., 1895).
- THOMAS, Miss F.; The Manor House, Hurworth, Darlington. (March, 1899).
- THOMASSET, BERNARD C.; West Wickham, Kent. (July, 1896).
- THOMPSON, Lady; 1, Hyde Park Mansions, W. (May, 1900).
- THOMPSON, Mrs. WALDEGRAVE; Forest Lodge, 23, Ravenscourt Park, W. (Dec., 1895).
- THORPE, CHARLES; Selborne, Chatsworth Road, Croydon. (Dec., 1901).

- THORPE, F. C. ; 14, Green Lane, Dronfield, Sheffield. (Jan., 1902).
- THORNILEY, PERCY WRIGHT; Shooter's Hill, Wem, Shrewsbury. (Feb., 1902).
- THURSBY, Lady; Ormerod House, Burnley. (June, 1895). *
- TIDEY, J. W. ; 5, Cambridge Road, Hastings. (Nov., 1902).
- TODD, RICHARD ALFRED, F.Z.S. ; Groombridge, Hersham, Walton-on-Thames. (June, 1895).
- TOWNEND, FRANK H. ; 26, Dorniton Road, South Croydon. (May, 1895). *
- TOWNSEND, STANLEY, M. ; 3, Swift Street, Fulham, S.W. (Sept., 1898).
- TREVOR-BATTYE, AUBYN B. R., F.I.S., F.Z.S., M.B.O.U. ; Avenue Studios, 76, Fulham Road, Chelsea, S.W. (July, 1898).
- TURNER, THOMAS, J.P. ; Cullompton, Devon. (Dec., 1895).
- VALENTINE, E. ; Highfield, Workington. (May, 1899).
- VAN UFFORD, Ionkheer L. I. Quarles ; 8, vande Spiegelstraat, The Hague (den Hagg), Holland. (Nov., 1902).
- VERRALL, CLAUDE ; Leyton Lodge, Denmark Road, Carshalton. (May, 1897).
- WALKER, Miss ; Chesham, Bury, Lanc. (Feb., 1895).
- WALL, T. A. ; New Lyric Club, Coventry Street, W. (May, 1902).
- WALLOP, The Hon. FREDERIC ; 46, South Street, Park Lane, W. (Feb., 1902).
- WATSON, JOHN ; Wentbridge Lodge, Pontefract. (Sept., 1900).
- WEST, Miss E. E. ; The Homestead, Hawthorne Road, Bickley Park, Kent. (April, 1898). *
- WHITEHEAD, Mrs. ; Haslem Hey, Bury, Lanc. (March, 1902).
- WHYTEHEAD, T. B. ; Acombe House, York. (April, 1897).
- WIENER, AUG. F., F.Z.S. ; 36, Mecklenburgh Square, W.C. (July, 1896).
- WILDE, Miss M. ; Little Gaddesden, Berkhamsted. (Dec., 1896).
- WILLIAMS, Mrs. C. H. ; 49, Okehampton Road, St. Thomas, Exeter. (May, 1902).
- WILLIAMS, Mrs. HOWARD ; Hamilton Lodge, Bickley, Kent. (April, 1902).
- WILLIAMS, Mrs. LESLIE ; 21, Bathwick Hill, Bath. (June, 1895).
- WILLIAMS, Dr. J. D. ; 93, Newport Road, Cardiff. (Feb., 1897).
- WILLIAMSON, R. B. ; Probate House, Wakefield. (May, 1902).
- WILSON, T. NEEDHAM ; Oak Lodge, Bitterne, Southampton. (Dec., 1901).
- WRIGHT, Mrs. ; 3, Rose Villas, Picton Road, Ramsgate. (Feb., 1898).
- WOODS, Miss ; North Grimstone House, York. (May, 1902).
- WROTTSLEY, The Hon. WALTER B., F.Z.S. ; 8, Herbert Crescent, Chelsea, S.W. (Oct., 1902).
- YARBOROUGH, Mrs. ; Campsmount, Doncaster. (Nov., 1899).

RULES OF THE AVICULTURAL SOCIETY.

1.—The name of the Society shall be "THE AVICULTURAL SOCIETY," and its objects shall be the study of Foreign and British Birds in freedom and in captivity. Poultry, Pigeons, and Canaries shall be outside the scope of the Society.

2.—The Avicultural Society shall consist of Ordinary and Honorary Members, and the latter shall be restricted in number to six.

3.—The Officers of the Society shall be elected annually by the Members in manner hereinafter provided, and shall consist of a President, one or more Vice-Presidents, a Treasurer, a Secretary, an Editor, an Auditor, a Scrutineer, and a Council of Twelve Members. The Secretary, Editor, and Treasurer shall be *ex-officio* members of the Council, and the first two of the Executive Committee.

4.—New Members shall be proposed in writing; and the name and address of every person thus proposed, with the name of the Member proposing him, shall be published in the next issue of the Magazine. Unless the candidate shall, within two weeks after the publication of his name in the Magazine, be objected to by at least two Members, he shall be deemed to be duly elected. If five Members shall lodge with the Secretary objections to any candidate he shall not be elected, but the signatures to the signed objections must be verified by the Scrutineer. If two or more Members (but less than five) shall object to any candidate, the Secretary shall announce in the next number of the Magazine that such objections have been lodged (but shall not disclose the names of the objectors), and shall request the Members to vote upon the question of the election of such candidate. Members shall record their votes in sealed letters addressed to the Scrutineer, and a candidate shall not be elected unless two-thirds of the votes recorded be in his favour; nor shall a candidate be elected if five or more votes be recorded against his election.

5.—Each Member shall pay an annual subscription of 10/-, to be due and payable in advance on the 1st of November in each year. New Members shall pay, in addition, an entrance fee of 2/6; and, on payment of their entrance fee and subscription, they shall be entitled to receive all the numbers of the Society's Magazine for the current year.

6.—Members intending to resign their membership at the end of the current year of the Society shall be expected to give notice to the Secretary before the 1st of October. Those who fail to give notice of their intention to resign, and who, by failing to give any intimation of their desire to leave the Society, permit their name to appear in the November Magazine in the "List of Members," or to remain on the Books of the Society, and thus allow the Society's Magazine to be forwarded to their published or other address, and those who, not having paid their

subscription, may at any time desire to resign, or shall have had their Magazines stopped on account of non-payment, shall send 1/- to the Secretary for every unpaid-for copy of the Magazine which shall have been forwarded to or obtained by them; and this sum of 1/- per Magazine shall become due to and recoverable by the Society in each and every case.

Resignations sent to any other than the Secretary shall not be recognized.

7.—The Magazine of the Society shall be issued on or about the first day of every month, and forwarded, post free, to each Member. The Editor shall have an absolute discretion as to what matter shall be published in the Magazine (subject to the control of the Council). The Secretary and Editor shall respectively refer all matters of doubt or difficulty to the Council. The decision of the majority of the Council shall be final and conclusive in all matters.

8.—The election of officers shall take place every year between the 1st and 14th of October. All candidates must be proposed by one Member and seconded by another Member (in writing) before they shall be eligible for election; but this shall not apply to officers willing to stand for re-election to the same office. All such proposals which have been duly seconded must be sent to the Secretary before the 14th of September. The Secretary shall prepare a voting paper containing a list of the candidates, showing the offices for which they are respectively seeking election or re-election, and shall send a copy of such voting paper to each Member of the Society with the October number of the Magazine. Each Member shall make a cross (X) opposite the names of those for whom he desires to vote, and shall sign the voting paper at the foot, and send it to the Scrutineer in a sealed envelope before the 14th of October. The Scrutineer shall prepare a written return of the officers elected, showing the number of the votes recorded for each candidate, and send it to the Secretary before the 21st of October for publication in the November number of the Magazine. In the event of an equality of votes, the President shall have a casting vote.

9.—It shall be lawful for the Council to delegate any of their powers to a Committee of not less than three.

10.—The Council (but not a Committee of the Council) shall have power to alter and add to the Rules, from time to time, in any manner they may think fit,—five to form a quorum at any meeting of the Council.

11.—The Council shall have power to expel any Member from the Society at any time without assigning any reason.

12.—Neither the office of Scrutineer nor the office of Auditor shall be held for two consecutive years by the same person.

13.—The Scrutineer shall not reveal to any person how any Member shall have voted.

14.—If any office shall become vacant at any time, other than at the end of the Society's year, the Council shall have power to nominate any Member of the Society to fill the vacancy until the expiration of the then current year.

THE SOCIETY'S MEDAL.

The Medal may be awarded, at the discretion of the Committee, to any Member who shall succeed in breeding, in the United Kingdom, any species of bird which shall not be known to have been previously bred in captivity in Great Britain or Ireland. Any Member wishing to obtain the Medal must send a detailed account to the Secretary, for publication in the Magazine, within about eight weeks from the date of the hatching of the young, and furnish such evidence of the facts as the Executive Committee may require. The Medal will be awarded only in cases where the young shall live to be old enough to feed themselves, and to be wholly independent of their parents.

The account of the breeding must be reasonably full, so as to afford instruction to our Members, and should describe the plumage of the young, and *be of value as a permanent record of the nesting and general habits of the species*. These points will have great weight when the question of awarding the Medal is under consideration.

The parents of the young must be the *bonâ fide* property of the breeder. Any evasion of this rule, in any form whatever, will not only disqualify the breeder from any claim to a Medal in that particular instance, but will seriously prejudice any other claims he or she may subsequently advance for the breeding of the same or other species.

In every case, the decision of the Committee shall be final.

The Medal will be forwarded to each Member as soon after it shall have been awarded as circumstances will permit.

The Medal is struck in bronze, and measures $2\frac{1}{2}$ inches in diameter. It bears on the obverse a representation of two birds with a nest containing eggs, and the words "The Avicultural Society—Founded 1894." On the reverse is the following inscription: "Awarded to (*name of donee*) for rearing young of (*name of species*) a species not previously bred in captivity in the United Kingdom."

Members to whom Medals have been awarded.

Vol. III., p. 210. Mr. R. A. TODD, for breeding the Long-tailed Grassfinch, *Poephila acuticauda*, in 1897.

,, IV., pp. 45 & 77. Mr. GEORGE E. BOUSKILL, for breeding the Golden-crowned Parrakeet, *Cyanorhamphus auriceps*, in 1897.

- Vol. IV., p. 212. The Rev. C. D. FARRAR, for breeding the African Firefinch, *Lagonosticta minima*, in 1898.
- „ V., p. 1. Mr. E. G. B. MEADE-WALDO, for breeding the Chinese Quail, *Excalfactoria chinensis*, in 1898.
- „ „ p. 159. Mr. E. G. B. MEADE-WALDO, for Breeding the Scops Owl, *Scops giu*, in 1899.
- „ „ p. 165. The Rev. C. D. FARRAR, for breeding the Noupareil, *Cyanospiza ciris*, in 1899.
- „ „ p. 169. Mr. R. PHILLIPPS, for breeding the Black Lark, *Melanocorypha yeltoniensis*, in 1899.
- „ VI., p. 217. The Rev. C. D. FARRAR, for breeding Barraband's Parrakeet, *Polytelis barrabandi*, in 1900.
- „ „ p. 270. The Rev. C. D. FARRAR, for breeding the Indigo-bird, *Cyanospiza cyanea*, in 1900.
- „ VII., p. 29. Mr. L. W. HAWKINS, for breeding the Cuba or Melodious Finch, *Phonipara canora*, in 1900.
- „ „ p. 32. Mr. L. W. HAWKINS, for breeding the Masked Grassfinch, *Poephila personata*, in 1900.
- „ „ p. 45. Miss R. ALDERSON, for breeding the Lavender Finch, *Lagonosticta cærulescens*, in 1900.
- „ „ pp. 165 & 215. Mr. D. SETH-SMITH, for breeding the Cape Sparrow, *Passer arcuatus*, in 1901.
- „ „ p. 191. Mrs. JOHNSTONE, for breeding Leadbeater's Cockatoo, *Cacatua leadbeateri*, in 1901.
- „ „ p. 192. The Rev. C. D. FARRAR, for breeding the Andaman Starling, *Poliopsar andamanensis*, in 1901.
- „ „ p. 197. The Rev. C. D. FARRAR, for breeding the Black-headed or Pagoda Mynah, *Temenuchus pagodarum*, in 1901.
- „ „ p. 217. Mr. W. H. St. QUINTIN, for breeding the European Roller, *Coracias garrulus*, in 1901.
- „ „ p. 219. Mr. A. E. NICHOLSON, for breeding the Rufous-tailed Grassfinch, *Bathilda ruficauda*, in 1901.
- „ VIII. p. 39. Mr. J. L. BONHOTE, for breeding the Spotted Eagle-Owl, *Bubo maculosus*, in 1901.
- „ „ p. 65. Miss R. ALDERSON, for breeding the Orange-cheeked Waxbill, *Sporæginthus melpodus*, in 1901.
- „ „ p. 212. The Rev. C. D. FARRAR, for breeding the Many-coloured Parrakeet, *Psephotus multicolor*, in 1902.
- „ „ p. 246, & Vol. IX., p. 15. Mr. PHILLIPPS, for breeding the Blue Wren, *Malurus cyaneus*, in 1902.*
- „ „ p. 249. Mrs. JOHNSTONE, for breeding the Barnard's Parrakeet, *Barnardius barnardi*, in 1902.
- „ „ p. 264. Mrs. HOWARD WILLIAMS, for breeding the Ringed Finch, *Stictoptera annulosa*, in 1902.
- „ „ p. 285. The Rev. C. D. FARRAR, for breeding the American Catbird, *Galeoscoptes carolinensis*, in 1902.
- „ „ p. 295. Miss R. ALDERSON, for breeding the White-winged Zenaida Dove, *Melopelia leucoptera*, in 1902.

* Not accepted,—R.P.





Mantern Bros. imp.

THE BLUE WREN.
Malurus cyaneus.

Parents, and young bird bred in Mr. Phillips' aviary.

Avicultural Magazine,

BEING THE JOURNAL OF THE

AVICULTURAL SOCIETY.

New Series.—VOL. I.—No. 1.—All rights reserved.

NOV., 1902.

THE BLUE WREN.

Malurus cyaneus.

By REGINALD PHILLIPPS.

(Continued from p. 249 of Vol. VIII.)

It is probable that this species has not previously bred in this country; so far as I know, this is the first year that the living bird has found its way to these Islands. I will, therefore, just add a word or two to what has already appeared.

Those who are accustomed to birds and their ways will have observed, when they read my supplementary remarks on p. 248 of our last volume, that coming changes had already cast their shadows beforehand over my little Blue Wrens,—though at the time I did not realize the full significance of the words I committed to paper. I vaguely referred to the unrest of the male, and to the circumstance that, when I peeped into the aviary to see how the young bird was getting on, I found it sitting side by side with its mother. This was the first occasion on which I had seen these two sitting quietly together by themselves. From that time these two, and these two only, were inseparable, hunting, feeding, and cuddling together, for they had been absolutely deserted by the male. The latter now seemed to have but one thought, how to get out of the aviary and be off and away.

Whence this sudden change! The bird whose chief thought had seemed to be the protection of his fragile little child had now ceased to think of it, and ignored its existence. And whither did he want to be off and away to? Had he a touch of migratory fever? or was the old villain thinking of a

certain fair damsel, hitherto referred to in these pages as the Spinster Aunt, who, when last seen, was bounding about on the top of the aviary, and had suddenly and mysteriously disappeared? Is this then the secret of the reputed polygamy of the Blue Wren? Is it his custom, after nesting with one wife, to hand all care of the young brood, when fairly independent, over to her, and himself to start afresh with Spinster Aunt No. 2, and so on until he has reared a brood by all of the three or four Spinster Aunts, one after the other in due order and succession? Small wonder that the number of the latter is limited to four!!!

These little birds are always on the move. Like Fidgety Phil, they can't sit still; and the colours of the old Bluebeard are so bright that one can usually detect him in a moment. But, on the 9th of August, not one moment but many passed, and the moments developed into minutes, and the minutes into hours, but no Fidgety Phil!!! In vain I scanned the aviary, in vain I mounted to the higher windows of the house and searched the neighbouring gardens with my eyes, but no glint of his bright blue jacket rewarded my efforts. Nevertheless I felt pretty sure that, if not caught nor killed, he would turn up before long—and towards mid-day he was on the top of the aviary. It will be remembered that the Spinster Aunt had been taken into the house a short time previously. As quickly as possible I clapped her into a cage-trap, let the trap down from a window on to the top of the aviary—and before one could say "Jack Robinson" Fidgety Phil was a prisoner and was safe in the house. Perhaps unwisely, but fearful of further escapes, and not unmindful of the cold and wet, I caught up likewise the mother and child; and the four birds have since been living together in a six-foot cage in my dining-room.

I do not know what to say about the song of the Blue Wren. They have several little twittering call-notes. In addition, a little rippling twittering song is occasionally uttered, certainly sometimes by the female, but I cannot say that it ever comes from the male. It is an insignificant little song, bearing a family resemblance to that of our own little Jenny Wren but inferior to it. While the birds were in the garden, I occasionally thought I detected, amidst the babel of many voices, a better

class of Wren's song, which I attributed to Fidgety Phil, so perhaps what I now hear is the song of only the female—perhaps of only the Spinster Aunt, who uttered it from time to time during the period that she was alone.

The odd female, whose tail I carefully notched, has been put back into her old position in the family circle of Spinster Aunt, and is decidedly vinegarish in consequence. *The* three are once more united, but it is exceedingly difficult to pick out the baby. Sometimes it will dart to its mother for a tit-bit: and whenever the parents are sitting together it will jump on to the top of them, and will not be satisfied until it has forced its way down and finds itself once more with a beloved parent on either side of it.

It had been my desire to have the family of Blue Wrens painted whilst they were in the garden. The group I had in my mind, and which I was anxious to have depicted on paper, was the little tot glued on to the thin high waving cane on which I had first perceived it, and which was its favourite perch when the sun shone, with its parents on either side. the father protecting the infant life while the mother nurtured it—a beautiful picture of Family Life as designed by our All Wise Creator. But Mr. Grönvold had his hands full, and was not able to pay his respects to the Blue Wrens until the 13th of August, after they had been brought into the house. This was unfortunate, for the light was indifferent and the birds were unrestful, and the male, with that remarkable consciousness of brilliantly-coloured birds in the presence of strangers, declined to be interviewed. I would not listen to our artist's bland suggestion that I should terrify the little mites by catching them up and putting them into a small cage, which might be moved about, and in which they could be freely inspected; much as I value a good painting, I have a far greater regard for the welfare of my pets. Eventually a large plant was placed on the table, and from behind it Mr. Grönvold made several sketches and studies from life, on this occasion and again on the 29th, with the result that we are now able to present to our Members the exquisite plate which adorns our first number of the New Volume and Series. The little caterpillar in the foreground is

over large for Mr. and Mrs. Phil, and baby Phil wonders whether its parents will offer to pop such a huge creature into its tiny maw.

I must now briefly bring this account up to date.

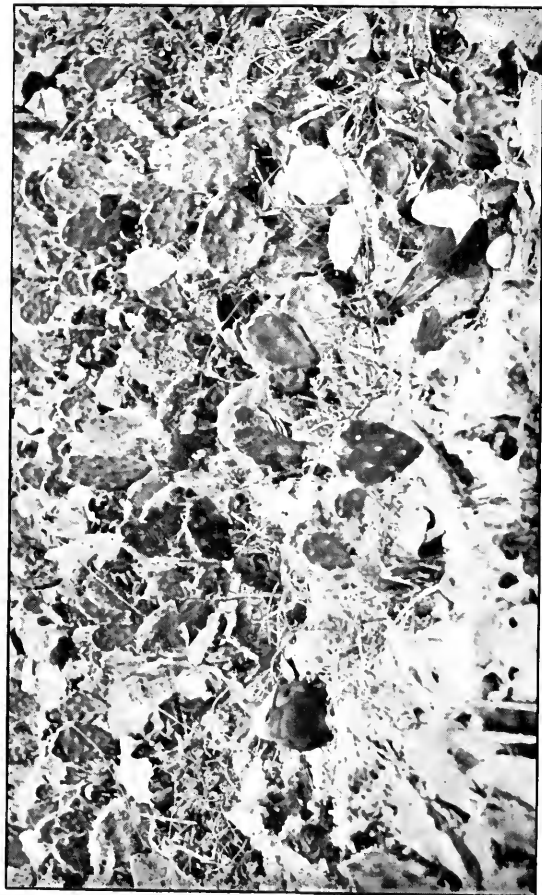
Early in September the male commenced a full moult, and now, at the beginning of October, scarcely a vestige of his old glory remains. The tiny blue feathers, cast from the head, and blown out of the cage by the birds' wings, would lie on the carpet, and on the oilcloth in front of the cage, and looked like little specks of blue wash. At first I did not realise that the specks were feathers. The changes of plumage at the wrong time of the year, and the general confusion over the seasons, and also the cold, greatly tried the bird, and I thought I should lose him; but he is maintaining his ground well, and I now have great hopes that he will survive.

Many feathers in the cage showed that some other bird was in moult. Whether it was only the young bird, or whether the two adult females also moulted, I cannot speak positively; probably all have been moulting; but the two females have kept their health and plumage remarkably well. The young bird has certainly been moulting, but retains the feminine plumage and light-coloured bill, so I suppose it must be a female. My hopes that it may be a male are sometimes raised by seeing it sitting side by side with the Spinster Aunt; but I am not very hopeful.

During the day, the four birds may often be seen cuddling together, but at night, while three roost on a twig in the open, side by side, the fourth, presumably the Spinster Aunt, hangs on to the side of the cage under the shelter of some green baize. During the day they frequently make use of a box I have placed in the cage, but I am not aware that they ever roost in it.

Although the four often cuddle together for the sake of warmth, it is more often only the three, the odd female being still treated as a stranger.

For several weeks they were terribly frightened at the approach of any one. The baby, when caught in the garden to be transferred to the house, was terror-stricken. Now, however, they are getting moderately tame, and never attempt to fly out



NODDY TERN.
Anous stolidus.

SOOTY TERN.
Sterna fuliginosa.

when I open the two-foot doors of their cage to attend to their wants.

Their little rippling and twittering voices are incessantly being uttered, now sometimes certainly by the male.

They are very sensitive to cold; their delight, when the sun shines into their cage, is unbounded.

They seem to be wholly insectivorous.

I often wonder how it has fared with some other specimens of this species which reached this country, along with my three birds, on the 26th May last!

FIELD NOTES ON SOME BAHAMA BIRDS.

By J. LEWIS BONHOTE, M.A.

PART II.

In my last article I dealt with the birds inhabiting the "coppet" or thick bush, and we will now turn to the tracts of land locally known as Pine Barrens. These barrens are, as I explained in my previous paper, extensive tracts of barren rock on which grows a minimum of vegetation; but shooting up on the rock in about two or three inches of soil, with their roots stretching out horizontally in all directions, stand pine trees, which reach a height of 40 or 50 feet. They are not very large, seldom exceeding 15 inches in diameter, and are destitute of foliage except at their summits where their branches join to form a fairly dense covering. Here and there, amongst the trees, are patches of bush, and over the rest of the ground long coarse grass grows scantily, intermixed with a few palmettos. In this region the birds are somewhat scattered and may mostly be found round the clumps of bush: it must not, of course, be imagined that the birds I am about to notice are strictly limited to the barrens. Nature refuses to be ruled by laws as immutable as the confines of an aviary and many of these birds are found in the "coppet" and *vice versâ*.

The commonest and perhaps the handsomest of all the birds of the barrens is the Bahama Finch* (*S. zena*) known

* *Spindalis zena*—Mus. Cat. Vol. XI., p. 169.

locally as the Cock Robin. It is to be found in some numbers round every clump of bush and seems to feed chiefly on berries, the black berry referred to when dealing with the Grosbeak being also a favourite with this bird. It is an extremely handsome species, reminding one by its size and bearing of our Chaffinch: in the male the whole of the head and throat are black with the exception of a white superciliary streak and malar stripe, and a patch of white shading into yellowish to form a median line on the throat. The back, wings, and tail, are jet black, the wing-coverts and outer tail feathers being broadly edged with white; the nape and rump are deep chestnut, as is also the chest, which fades away to bright yellow on the breast; the rest of the underparts are whitish, shading to olive on the flanks. The female is throughout of a dull yellowish green and the young resemble her. I have never found the nest of this species, but from the large preponderance of males at Abaco last March I feel pretty certain they must have been nesting at the time. Flying about in small flocks they may generally be found by listening for the call note, which is a high-pitched "twee" frequently uttered, especially during the early spring, when the males are very pugnacious; it does not appear to have any noticeable song. As this bird is frequently caught alive I have on several occasions had one in my possession, but they did not live long, and I never succeeded in getting them on to artificial food, but have had to feed them entirely on wild berries; they get very tame, but their beauty is their only attraction.

When wandering along the pine barren, apparently destitute of birds, a loud laughing note may possibly ring in your ear and in front of you on a bough may be noticed a large Flycatcher, about the size of a Thrush, its colour and mode of flight being very similar to that of our common species; again you will hear the note and the bird is gone, only to a neighbouring tree in all probability, but so sudden and jerky are its movements that the eye can scarcely follow it as it goes behind one tree and round another, finally coming to an abrupt standstill. Such is the Bahama King Bird, * *Pitangus*, locally known as the

* *Pitangus bahamensis*—Mus. Cat. Vol. XIV., p. 180.



NEST OF BAHAMA OSPREY,
Spanish Wells, Andros.

Photo, by J. L. Bonhote.

Bale, Sons and Danielsson, Ltd.

“Fighter,” but not to be confused with the * Grey Tyrant, which also passes under that name and which it closely resembles in colouration and habits. There is one point worthy of note about its plumage, viz., a bright coloured yellowish crest on the top of the head. This crest occupies the same position as the bright golden patch in our Golden-crested Wren, but there the similarity ends; in the latter bird the bright feathers are bright for their *whole* length, but are concealed when the bird is quiescent by the longer feathers in the front of the crown completely covering them. With *Pitangus* it is otherwise; the bright colour is, as a rule, entirely concealed, being situated in the bright coloured bases to the feathers of the crown, and no amount of erecting the crest, which is frequently done, will display to any extent this patch. The colour is displayed however, and most effectively too; it is done by drawing to either side the feathers of the crown, especially the small ones immediately in front of the patch, and erecting the crest at the same time. A bird which I had in captivity for a short time used, probably from fear, to display it thus on my approach; this it would do several times in rapid succession, the sudden display and obliteration producing a very curious and weird effect. Three or four other species of Flycatchers are found in the islands, and they all bear a very close resemblance to each other, although only *Pitangus* and *Tyrannus* have the bright crest. The most common species, next to *Pitangus*, is the Rufous-tailed Flycatcher (*Myiarchus sagrae*), a species generally met with in pairs, and frequenting the bushes in the pine barren, although it is often met with in the “coppet.”

They are very tame and allow a close observation, especially when building their nest, which is generally placed down a hole in a tree and composed chiefly of dry grass; both parents work assiduously at the nidification, but if they should meet on returning with some material they would stop on a near-by bough for a short flirtation, after which each would go off again in a different direction.

No record of the birds in this part of the globe would be

* *P. caudifasciatus*—Mus. Cat. Vol. XIV., p. 179.

complete without mention being made of the Humming Birds, of which three species are found in the Bahamas. The commonest and most generally distributed is the Bahama Woodstar (*Doricha evelynae*) which is fairly numerous everywhere, although rather local, being influenced chiefly by the plants in bloom; they are always especially common round the flowers of the sisal and return again and again to a particular bush. The colouring of this species is not very brilliant, being in both sexes of an olive green, the gorget of the male, which is of a glistening purple, excepted. The flight is straight and rapid, but seldom continued long in one direction, the bird darting hither and thither or hovering in front of some flower whilst sucking the nectar. Another and rather finer species (*Sporadinus ricordi*) is only found on Andros and Abaco, and is of a most gorgeous metallic green all over, while a third species, which I did not meet with, is restricted to Inagua.

Passing through the barrens a loud and clear call, consisting of two notes, may often be heard; in a short time a large black bird with a long tail may be seen perched on a high branch whence an extended view of the surrounding country may be seen. On a nearer approach his cries will become more vehement, and half-a-dozen or more of his comrades will rise from the ground and settle on the neighbouring bushes, the whole flock eventually taking to the wing and flying off in a long straggling line. This is the Ani (*Crotophaga ani*) an aberrant species of Cuckoo; it is a long thin bird whose plumage is entirely black, the most noticeable feature about it being the upper mandible, which is flattened vertically so that its height at the base is nearly two-thirds of its length. Although broad at the base it narrows towards the tip and also along the culmen so as to form a sharp ridge like a plough. I cannot speak from personal observation of the uses of this curious beak, but according to Gosse, who writes of it in Jamaica on the authority of Mr. Hill, it is used to open out the soft earth in its search for food, and also "facilitates its search for vermin imbedded in the long close hair of animals," for it is apparently accustomed in Jamaica to feed with cattle as the Starling does in England. As I did not come across any cattle in the islands I visited, there has been no chance afforded

me of confirming this habit. We have, however, not yet come to an end of the peculiarities of this most eccentric bird. In its nesting habits, about which much remains yet to be learnt, it carries the idea of co-operation to an extent unknown, I believe, in any other species of bird: for the whole flock builds a nest in common, in which the eggs and young are hatched and reared by the community. I can find no detailed account as to whether the species is polygamous or not, nor the number of eggs laid, etc. I have only come across two nests, which are large untidy structures, built of twigs and apparently without any lining; but unfortunately in my first nest the inhabitants had flown, and the second nest was placed high up in a species of cactus and absolutely unapproachable without destroying the plant. At the time I found it many and perhaps all the young were flying, but they used still to return every night to roost in or near the nest. It is very surprising that so little definite information should be forthcoming about a bird so common and conspicuous, an inhabitant of the cattle pastures, and with habits unparalleled among the whole of the class *Aves*.

As the Sapsucker restricts its wanderings to the coppet and gardens, so the Hairy Woodpecker (*P. villosus*) is only found, and that sparingly, in the pine barrens. It is a black and white bird resembling in size and colouring our Greater Spotted Woodpecker, and apparently of very similar habits. Several other Woodpeckers are found locally on some of the other islands, but I did not have the good fortune to come across them. There are two other species which may almost always be met with in the barrens; the one the Yellow-throated Warbler (*D. dominica*), is apparently only a winter visitor, but cannot breed * at any great distance away as it is back again before the end of August; the other, the Pine Warbler (*D. pinus*), is a resident, and has been separated into a distinct race. The former is a beautiful little grey Warbler with a bright yellow throat and chest margined with black; the underparts are white heavily blotched with black on the flanks. It goes about diligently searching for insects on the topmost branches of the pines, reminding me by its actions of our Golden-crested

* *Dendroica dominica*:—"In summer, the Mississippi region of the United States, north to Lake Erie; common in South Illinois." Mus. Cat., Vol. X. p. 303.—R.P.

Wren. The Pine Warbler is a bird of similar stamp but of rather stouter build, the upper parts being green and the lower parts yellow. In habits it does not differ appreciably from any of its congeners, and I have often shot it from among a flock of Yellow-throated Warblers. Such Pigeons as are found in the islands may be looked for in the barrens, but, with the exception of the White-crowned Pigeon, which is most abundant on the cays, and of the Ground Dove, which abounds everywhere, the three or four remaining species are all rather scarce and need not be noticed here. The Ground, or as it is locally termed the Tobacco, Dove is a most abundant resident and is common everywhere, whether it be in the thick bush or in the pine barrens, on a lonely desolate cay, in the gardens of the town, or even along the roadside. It is a bird now too well known to aviculturists to need a special description here, and is almost invariably met with in pairs. It feeds and lives entirely on the ground, but when flushed perches immediately on the nearest tree or wall. It breeds practically all the year round and the nest, which is the flimsy twig structure of all Pigeons, is placed either on the ground or on a tree or bush at any height up to 10 or 12 feet. When the nest is approached the parent does not go far away, and by her solicitude betrays the fact of its existence, although a close search is then required to find it, especially if it be on the ground, as it is by no means conspicuous. The food seems to consist almost entirely of a hard black seed (sp. ?), though it may be easily trapped with any bait, and in confinement, becomes very tame, feeding on very small grain.

(To be continued).

THE RUFIOUS-BELLIED NILTAVA OR FAIRY BLUE CHAT.

Niltava sundara.

By RUSSELL HUMPHRYS.

It may perhaps be of interest to our members to have a short account of an example of *Niltava sundara* which came into my possession early in June this year.

“The genus *Niltava*,” says Oates, “contains three species

of Flycatchers remarkable for the brilliant plumage of the males. The sexes differ in colour, but both may be recognised by the presence of a bright spot or mark on the side of the neck. The *Niltavas* frequent thick jungle and are less typical in their habits than the species of *Cyornis*, and they are said to eat berries. They appear to be resident on the Himalayas.

“In *Niltava* the bill is somewhat compressed laterally and narrow, and the base is covered by a multitude of dense plumelets, which conceal the nostrils: the rictal bristles are moderate in number and in length; the first primary is large, being quite half the length of the second, and the tail is rounded.”

He describes the male as follows: “Forehead, lores, sides of the head, chin and throat deep black; crown of the head, nape, rump, upper tail-coverts, a spot on either side of the neck, and the lesser wing-coverts glistening blue; the remaining coverts and quills dark brown edged with purplish black; tail black, the outer webs edged with bright blue; the whole lower plumage and the under wing-coverts chestnut; bill black, legs brown, iris dark brown; length about 6·5 inches. Distribution: the Himalayas from Simla to Assam, from 5,000 to 8,000 feet elevation; the Khási Hills; Karennee at 4,000 feet. Blyth records this species from Arrakan and Tenasserim. It extends into Western China.”

This beautiful Flycatcher is, I have reason to believe, the first of its species to reach this country alive. It was in excellent condition on arrival, perfectly healthy, in very good feather and quite tame, illustrating how much can be accomplished in the way of importing delicate insectivorous birds by those who are fortunate enough to be able to afford the necessary time and trouble. The bird on arrival was placed in a roomy box cage and fed on the usual soft food; a few mealworms and a little ripe fruit are given daily, a partiality being shown for over ripe pears and greengages; oranges or bananas are hardly touched. In addition to the soft-food mixture, a small quantity of dry ants' cocoons are placed in a separate dish, and are invariably finished before a start is made on the moistened food. Any insects that are procurable are highly appreciated.

Early in June the bird commenced to moult, and at the present time (Sept. 30th) it is practically completed, the quills on the forehead and sides of the head alone remaining. Mr. Harper wrote me that the bird was in song; he was evidently just going off, previous to moulting, when he arrived. He has, at the present time, just started recording again. His initial efforts resemble the warble of the male Red-backed Shrike, and some of his call notes are very similar to the English Robin; but it is too early to write much about his vocal abilities at present.

In any case his extreme rarity and brilliancy of plumage make him a very interesting and welcome addition to the aviary.

ON THE RINGED PLOVER AS AN AVIARY BIRD.

By P. W. FARMBOROUGH, F.Z.S., F.E.S.

Once a year, at least, I spend some time at Sandwich, Kent; where, as much as my opportunities permit me, I employ my time in studying the fauna of the district; although principally my attention is devoted to mammalian life, I often for a change have a day with the birds of the district, with the result, usually, that the one day only I originally intended to have extends into several.

A very favourite hunting-ground of mine (both ornithologically and entomologically) is that stretch of land bordering the sea shore about three miles from the town of Deal. No doubt many of the members of the Avicultural Society—certainly the golfing members—will best know the district I mean when I state that it is in the immediate vicinity of the St. George's Golf-links and on the seaward side of the famous links. Some of our readers will remember that, in the fourth volume of the Society's magazine, I gave some experiences of the Grasshopper Warbler obtained there. On this occasion I have to deal with the Ringed Plover.

Last summer whilst walking in a contrary direction to the one usually taken towards Deal, *viz.*, towards the mouth of the

river Stour, my attention was attracted by some birds on the water-line some distance away. Being tolerably certain that a nearer approach would only end in their flight, I sat down among the dunes just at the back of the beach, where I had a convenient opportunity of studying the birds through my field glasses. My curiosity was aroused after some time by noticing that every now and again some of the birds flew or ran from the water-line to the back of the beach where they remained a few moments, and then rejoined their companions by the waves. This went on for about an hour, until, after having noticed that certain of the birds always went to the same spot, I gradually edged my way as stealthily as I could nearer and nearer, still carefully focussing my glasses on the line of shingle they kept returning to. That there were nests there, there was little doubt, but knowing the extreme difficulty of finding the eggs or young except by pure accident I had little hope of being successful in discovering either, but thought it was as well to try and see what could be done.

After very closely watching for nearly another hour some signs of movement were detected among the pebbles; the spot was carefully marked and then I arose and approached it. The majority of the Plovers flew off but two or three endeavoured by artifice to attract my attention to themselves; this however was unavailing, and after a minute search round the marked spot I discovered two downy little mites. As four is the usual number of eggs laid by the hen Ringed Plover there were probably two others, but, in spite of examining every inch, as I thought, for yards round, I was unable to find more. Not having any basket with me I was at a loss to know what to do with my young captives. But whilst putting damp sand and some pebbles into a straw hat hardly improved either its appearance or utility as an article of wearing apparel, it certainly formed a makeshift arrangement which answered the purpose.

Having got the youngsters home it was a poser to me to know upon what they should be fed; they obstinately refused all food that evening, and would not look at hard-boiled egg the next morning; I sent a wire off for a supply of mealworms and fresh ants' eggs to be sent me immediately as there were none to

be had in the town, and whilst waiting the arrival of these I went down to the beach and caught a varied collection of insects, sand-hoppers, small shrimps, etc. When these were offered they were seized with avidity. When the ants-eggs and mealworms arrived I made a chopped paste of equal parts with hard-boiled yolk of egg; this was refused, and this resulted in another journey to the sea-shore. This time a larger quantity was procured and I tried leaving out the mealworms and substituting chopped shrimps in their place with the ants' eggs and yolk of egg; this they accepted, and after one or two mouthfuls made no demur again. I found that cooked shrimps were taken just as well as the raw ones, but these I made into a paste by pounding them up before mixing with the other ingredients. After some few days some minced meat was gradually added to the food, and from this they were by degrees weaned on to a staple diet of chopped hard-boiled eggs, both whites and yolks being used, chopped raw meat, bread crumbs, and a little game food mixed in: this they thrived well on. *

As pets Ring Plovers get remarkably tame and confiding, and will always come to the wires of the aviary if called to obtain some tit-bit or another. They prefer a very thick layer of sand in the aviary, and are very fond of dabbling in a very shallow tray of water which was placed in for their benefit. They do not seem to be quarrelsome birds and do not interfere with their companions, the Californian Quails.

* I had just finished writing up to this point when, on taking down my numbers of the *Avicultural Magazine* to have a glance through, I noticed that on p. 90 (the March No. of this year) Mr. Percival has an article on rearing Ringed Plovers from the egg, which I was unaware of. I must apologize for not having more carefully read my numbers of the Magazine, before wasting space in the Society's periodical, which might be used to better advantage than in being utilised to chronicle my experiences of a bird which another member has done more than myself with.—P. W. F.

Independent accounts are always valuable; and I am sorry that Mr. Farmborough did not continue his account of these interesting birds.—R.P.

THE SEX OF THE BENGAL PITTA.

Pitta brachyura.

It was with considerable interest that I read the excellent article by our esteemed Secretary, Mr. R. Phillipps, on the Pitta, which is concluded in the September number of our Magazine. I was disappointed, however, to find that nothing definite was mentioned about the difference between the sexes. Our most recent publication upon the birds of India, by Oates and Blanford, gives us no clue; it merely states that the sexes are alike. During the past two or three years in India, I have made it my business to carefully compare all the live Bengal Pittas I could see; with the object of discovering any guide to the identification of the sexes. The Bengal Pitta is the only species of the genus ordinarily met with in captivity; but it is far from being a common cage-bird, even in India, where it is indigenous. Still, I have had an opportunity of observing a few dozens of them; and the only distinction I can find is the width of the black band of feathers which runs along the top of the head. In some birds it is quite twice the width of what it is in others. This difference is observable both in adult birds and also in the young, even before the first moult; and I am thoroughly convinced that it is to be relied upon. To determine whether the cock or the hen has the broader line upon the head can only be ascertained by dissection.

E. W. HARPER.

CORRESPONDENCE.

CURIOUS NESTING PLACE OF BUDGERIGARS.

SIR,—A pair of my Budgerigars have chosen a very curious place for nesting.

A few days ago, whilst brushing out the fountain in the aviary flight, I noticed a Budgerigar fly up from almost under my feet. Thinking it rather strange that I had not noticed the bird on the ground, I stooped down and discovered a hole (large enough for a rat to pass down) burrowed in the earth underneath a large stone. I lifted the stone up, and a little further under the surface I could just see a nest containing four or five eggs, which appeared almost on the point of hatching. The Budgerigars had lined the

nest with a quantity of feathers, I suppose to keep the eggs from the damp soil. I should think the burrow would be from twelve to fifteen inches long.

I have been rather short of husks, so this may account for them having to adopt what I consider a novel idea.

Hoping this may interest some of the members. *

R. FRANKLIN HINDLE.

THE GOLDEN-SHOULDERED PARRAKEET.

Psephotus chrysopterygius.

SIR,—Will you be so kind as to tell me if I am treating a pair of Golden-shouldered Parrakeets correctly?

I have had them for a few days, and they are very lovely; and I am naturally very anxious to get them through the winter well. They are in very good condition, and do their importer much credit.

I am giving them canary seed, white and spray millet, rock salt, cuttle-fish bone, and flowering grass. They are in a box cage, in a warm room, with no fire, but next a bright conservatory.

I believe you have had these birds; and if you can help me in any way as to their treatment I shall feel much obliged.

Can you tell me also if any others were imported? these were brought over privately for me.

M. A. JOHNSTONE.

The following reply was sent to Mrs. Johnstone:

You are indeed fortunate in having secured a pair of the rare and beautiful Golden-shouldered Parrakeets.

You will find a coloured illustration of a pair, and a short account of the species, at page 153 of Volume IV. of the *Avicultural Magazine*; and a further account of one of the females nesting (with a Red-backed Parrakeet) will be found on page 157 of Volume V.

So far as I know, none of these birds has been imported since 1897. Excepting the pair secured by the Zoological Society, all the specimens I saw were females. I obtained two; and the one which I wrote about on the two occasions quoted is still alive and well.

She has been flying loose in the aviary and birdroom, and feeds on what she likes. As far as I can see, she behaves like the Many-coloured Parakeet, and is just as easy to keep.

Although so well seasoned, she does not like cold weather. During the winter months, the birdroom is kept warm. On a fine day, the window

* Very interesting; but, to my mind, the point of peculiar interest is that the nest should have been lined with feathers.—R.P.

is opened a little, and those birds that like to, go out for a fly. It is very seldom that she does not go out.

When the nesting season is over, and the whole aviary is thrown open, she spends most of her time, if not too cold, amongst the trees and shrubs, nibbling away at the tenderest bark and young wood, and at any leaves and shoots that may remain.

More or less all through the year, if I can find the time, I sow wheat, etc. When the seeds begin to shoot up, she nibbles away at them with much pleasure.

Her old mate, a poor creature, died long ago, and she will not take to his successor, but spends her time flirting with the Red-faced Lovebird, exciting the jealousy of the female, with whom sometimes she has fierce battles; so I am not hopeful of any further nesting operations from her; and I cannot arrange to place her elsewhere.

She always wants to nest in the early spring, and falls into moult rather soon.

She is a very simple feeder, partaking of the seeds you mention, and occasionally taking a little raw fruit. I think she sometimes helps herself to a morsel of plain biscuit.

Perhaps these notes may help you a little bit.

I should most certainly keep your birds warm during the winter and spring. I may be quite wrong, but I do not believe in exposing such birds to cold.

The difficulty about the nesting lies in their wanting to commence so early in the year.

My female was a very timid sitter, so you would have a better chance in a large than a small aviary. You will know best what arrangements you can make; but take care that no other Parrakeets or disturbing elements are placed with them.

My bird nested in a log-nest in the birdroom which was carefully hidden away, and which was lying on its side, slanting up a little, with the top off; but such a natural hollow tree as the one in which you reared your Barnards would be infinitely better.

My bird takes a bath pretty regularly.

R. PHILLIPPS.

[The species is still not infrequently confused with its near relative the less uncommon Beautiful Parrakeet, *Psephotus pulcherrimus*.

Mr. Campbell says,—“*Nests and Eggs*.—Undescribed.” I do not know when those words were penned, but certainly some time after the birds reached my hands. The eggs were known in my aviary in 1899, and still adorn my cabinet. It is not the first instance by several that I have

noticed of wise men being behind the times through not reading the *Avicultural Magazine*.

Some hybrids, bred I believe on the continent, between this species and the Many-coloured Parrakeet, have been on view in the Parrot House of the London Zoological Society for a considerable time.*

Again this year I specially notice that, at any rate here, *Psephotus hæmatonotus* and *P. chrysopterygius* moult, and also are at their best, at different seasons of the year. This will account for the clear eggs by the first, and the total rejection of the second, Redrump by my Golden-shouldered Parrakeet.—R. P.]

THE LETTERED ARACARI, ORIOLES, ETC.

SIR,—My husband has asked me to write to you about a miniature Lettered Toucan we have just received, as he had to leave home this morning. The Toucan has got a cold, to all appearance in its head (if this is possible in birds): it snuffles through its nose until I feel inclined to offer it a pocket-handkerchief!! and sneezes, and both eyes are running so much that after a sleep they are so glued up the poor thing cannot open them until I bathe them with warm water.

It eats well. I feed it on bread and apple mixed, bananas and pears cut up, and it has taken a great fancy to small raisins steeped in water. It drinks a great deal, and I put glycerine and Parrish's food in the water. It is very light to handle, and seems to feel the cold greatly. Its plumage is rather dirty, but I suppose it would not be wise to wash it until it is better—if it ever does get better. Are these birds very delicate as a rule? I suppose they come from South America; I have looked through all the numbers we have of the *Avicultural Magazine* but do not see any one mentioning them.

Please let me know if there is anything else we could do for it, as I would be very sorry if it died it is such a pretty bird, and so brightly coloured; and I do not think it is often on the market, though I frequently see the Ariel Toucan advertised.

You may like to hear that the Sykes' Oriole, the young one that we sent you a sketch of some time ago (Vol. VIII., p. 100), has not yet changed plumage, though it looks much brighter in colour, and has a bright yellow vent and under tail-coverts. The little yellow feathers are still on its shoulders that were marked in the sketch, but are brighter yellow. It has still got a speckled breast, and is in perfect health and plumage.

Our aviary did very well this year. We had not many deaths, the worst being three young Diamond Doves that were bred in the aviary and lived about four or five months, and then seemed to get fits and died; they were in lovely plumage, and hardly to be distinguished from the parents.

* The female died some months ago.—ED.

Our Blue-winged Lovebirds also bred in a log-nest out-of-doors while we were away, but on our return we found five dead young ones fully feathered in the nest. I fancy rain must have got in and drowned them. Our Virginian Cardinals also built, laid, and hatched, but we could not get enough insects in time for them, and they (the young birds) gradually died, the surviving one being about seven days old when it died.

M. F. RATHBORNE.

The following reply was sent to Mrs. Rathborne :

Your Lettered Aracari is very seriously ill. Keep it as warm as possible, be very careful to shelter it from draughts, and do not wash it on any account.

Try and get it to take syrup of squills. Try also ipecacuanha wine in the drinking water. Place as near as possible to the bird (*outside* the cage and out of its reach) a small cup filled with cotton wool, on which from time to time pour eucalyptus oil. In *addition* to the fruit, offer the bird a few mealworms and a little very carefully scraped raw meat, and a little cooked meat, such as cold mutton. Whole raisins often cause indigestion; it is best to cut them up. You may also give boiled carrots (cut up), grapes, and egg.

These birds are very sensitive to cold; and they are often in a dying state before they reach our hands.

The Lettered Aracari, *Pteroglossus inscriptus*, comes from Guiana and Lower Amazonia (South America). The throat and neck in the male are black, in the female brown. (See also my letter on "Toucans," in the October number).

I am glad to hear that your Sykes' Oriole is well. May I ask you to watch its breast, and note when the speckles disappear. My Black-naped Oriole (Vol. VIII., p. 100) has been very slowly changing his body feathers all through the summer, and last September suddenly grew (for the first time in this country) wings and tail, and is now flying about the aviary in the most brilliant plumage, almost eclipsing in colour (*a*), but not in character, the male Regent-bird (Vol. VII., p. 138).

The Blue-winged Parrakeets, *Psittacula passerina*, are not true Lovebirds (see Vol. II., p. 49). Although so common, they do not very often breed successfully in this country.

* I have been so severely censured for presuming to compare the two birds that I hasten to add that the beautiful velvety feathering of the head and neck of the Regent is wholly wanting in the Oriole, the latter also wanting the rich orange-yellow and reddish orange of the head and crown of the Regent-bird. In character the two species cannot be compared for a moment.—R. P.

The young Doves should not have died. If they had fits, there was something wrong with the feeding.

Some insectivorous parents will carry preserved yolk of egg in *flakes* to their young. Another time you might try this along with the insects should your Cardinals nest again. Ordinary boiled egg will not do ; it is too sticky I suppose.

REGINALD PHILLIPPS.

RAVENS, CROWS, ROOKS, ETC.

SIR,—Can you give me any information regarding the habits of Ravens?

A friend of mine in this town has a bird which we *call* a Rook, not knowing what else to call it ; but we think now it must be a young Raven. She found the bird some two months ago outside her drawing-room window, pecking hard at the glass to draw attention to its state of hunger. The bird must have escaped from somewhere as its wings had been clipped, but the creature could fly to a certain extent, and used to spend most of its time in my friend's garden roosting in the trees. It has one very interesting habit which I have never known Rooks have, and that is hiding its food in holes and crannies of rockery-sort-of-places. It is very fond of my friend as also is my friend of it, and will let her do anything she likes with it.

The bird was missing for a few days last week, greatly to our sorrow ; and we were afraid it had been caught or killed by stone-throwing boys, of which there are a terrible number in Bideford ; and my friend hunted everywhere for her pet, and enquired at the houses all round. It was found at last in a cottage near by, in quite a small box in which it had hardly room to move ; and I should imagine that not much food and no water had been given to the poor thing all the three days it was missing. My friend is now afraid of giving the bird its liberty ; and I suggest that a large aviary be built for it somewhere in the garden.

It is jet black, with very clean neat black legs, the head is rather flat, and there is not a white feather to be seen anywhere.

It is full of mischief, and steals everything it can lay hold of, and then hides it and covers it all up with anything it can find. Can you give me any suggestions as to treatment, etc. ? It prefers meat to anything else, but nothing seems to come amiss. . . . The plumage is glossy blue-black, and the size about that of a full grown Rook now, though the bird is quite young. I do not think it can be a Rook, but fancy it is a young Raven.

MARY KEENE.

The following reply was sent to Mrs. Keene :

I understand from your letter that you are acquainted with the Rook. If the bird be a trifle larger than a Rook, then doubtless it is a Crow ; but if it be a good deal larger, with a long *stout* bill, then it is a Raven.

The Raven is such a fine bird that you cannot very well mistake it. In the wild state, it keeps together in pairs, breeding usually in cliffs, though occasionally in trees. It is still moderately common in some parts of the coast where there are cliffs, but is, generally speaking, rare inland. It will eat any living creature it is able to kill, and also feeds on dead creatures, large insects, eggs, and almost anything that comes in its way. In captivity it makes a splendid pet if allowed plenty of room, imitates almost any sound that may take its fancy, and will learn to speak a few words clearly. If the bird be young, now is the time to teach it. If it may not be allowed to roam about, the larger the aviary you can make for it the better; one part must be sheltered, and the rest open to the weather. A few thick perches should be fixed about. It is very fond of washing. Feed on mice, rats, young rabbits, sparrows, and scraps from the dinner table of almost any kind, the greater the variety the better, and may include cabbage, carrots, peas, etc. (not potatoes unless well mashed up with gravy), and now and then a little fruit. Butcher's meat (raw) is very heating for a bird, and is apt to cause it to pluck out its feathers. If it should shew any tendency to do this, at once put fluid magnesia in the drinking water and give less meat. Fowls' heads, necks, etc., come in useful.

Some day if I can find the time, I will write the story of a Raven which I had here for years.

The Carrion Crow is a fairly common bird, breeding freely wherever there are plenty of woods and trees. It is wonderfully clever in selecting spots where it is likely to be unmolested. Like the Raven, it keeps in pairs, never going about in flocks like Rooks; and in its habits generally it is much like the Raven. When a lad I often kept young Crows, but they are neither so clever nor so interesting as Ravens.

Rooks, although omnivorous, are more inclined to be insectivorous and granivorous than either of the foregoing. Rooks congregate in flocks all the year through; and old Rooks have the space round the base of the bill bare of feathers. Young Rooks and young Crows are much alike, but, unless my memory plays me false, the young Crow is of a very dead black, while the young Rook is glossy. Books tell us that young Rooks may be distinguished from young Crows in two ways. Turn back the body feathers, and the bases of the feathers in the Rook are grey, in the Crow white. The inside of the mouth of the Crow is said to be of a *pale* flesh colour at all ages, while that of a young Rook is said to be of a *dark* flesh colour, soon turning livid, and becoming of a slate colour in the adult bird. The Jackdaw may be distinguished in a moment by its light-blue eye.

The Raven nests early, and a young Raven ought by now (August) to be considerably larger and more bulky than a Rook. Most of the young Ravens met with in captivity in this country come from the continent. During the coming winter and spring, carefully watch the small feathers on

the front of the bird's face, near the bill. If they drop out, leaving the skin bare, then it is a Rook. It will be very useful if you carefully watch the process, noting particulars and dates, and report to us for publication, as the exact manner in which a Rook gains its bare face is not certainly known.

REGINALD PHILLIPPS.

[The solitary nature of the Carrion Crow is well known, but it is not so well known that, under certain conditions, the species will breed in miniature colonies. When the attraction is only the collection of specially suitable trees (in a wood) within a limited area, the nests will not be near enough to one another to deserve the name. So far as I have myself seen, the "colony" occurs only in districts where the keeper is active, and where, by some chance, a wood or portion of one escapes his unwelcome attentions.

In a long out-lying wood at one time well known to me, and ever sacred as the one in which I found my first Hobby's nest, in a corner of immature oaks (it had been thinned out a few years previously), with but little covert of any kind, and a most unlikely place for Crows, and which the keepers had almost given up in despair because of the distance and of its close proximity to a hamlet of evil repute, I came one year upon a remarkable colony of Carrion Crows, quite a number of nests being herded together, each one that I examined having its full complement of semi-incubated eggs.—R. P.]

NESTING OF SPICE BIRDS.

SIR,—I noticed last year Lady Dunleath wrote you saying she had bred and reared Spice Birds in her aviary which, I think, is the first authentic notification of these birds breeding in captivity in England.

This year I have had three young ones of this species successfully reared in my aviary. Many were the attempts the old birds made to nest, but until this time they were unsuccessful. Either the Yellow Budgerigars would wilfully destroy the nest, or the Golden Weavers would borrow the nesting materials, and on one occasion a pair of Starlings purloined the eggs. The last time not only did they deceive the other birds, but me also, for I did not even know they were building. One day to my surprise, when feeding, I saw the old birds flying about and feeding three young ones which were nearly as large as their parents, and in perfect feather and tight as wax. They are now feeding themselves, but are still in nestling plumage, which is of a uniform brown and, excepting for the white colour at the junction of the upper and lower mandibles, might be taken for adult birds of some other species.

The old birds have been in my outdoor aviary for about two years. Having such a variety of birds in this aviary, my chances of successfully

breeding are very small. The Spice Birds nested under the eave of the shelter and behind a cocoa-nut husk. The nest was built with the hard seed stems of grass, without any lining.

ARTHUR GILL.

BRITISH BIRD NOTES.

SIR,—During a stay of three weeks in Shropshire, on the borders of Montgomeryshire, I had the satisfaction of seeing some rare birds, for instance, a Green Woodpecker, a Heron, and a Jay, the last a very scarce bird indeed in that part of the world. I also caught sight of a family party of seven Goldfinches, the first I have seen wild for a long time: they were feeding on some thistles on a piece of waste land in the Welsh county. Sparrows and Wood Pigeons were decidedly too numerous, the former especially, and were doing an appreciable amount of damage to the corn and other cereals. I also perceived a belated Cuckoo, and saw numerous Swallows sitting on the telegraph wires, preparing for their departure to a more genial clime, which was rather early for them to think of leaving us, for some of them had young ones still in the nest, but the weather was so inclement, one cannot wonder at their hurry. The Chaffinches had broken up their family parties and I saw several flocks of the males, but the females were conspicuous by their absence. Starlings were plentiful, so were Yellowhammers, but I saw no Linnets, for there was little or no furze coverts about. Pheasants were numerous, but backward, and many couples (or is it brace?) of Partridges appeared to be childless, while those with families had not many young, the biggest covey I saw only consisted of twelve birds, and many only numbered seven or eight. W. T. GREENE.

BREEDING GOULDIAN FINCHES, &c.

SIR,—It may interest some of the readers of the *Avicultural Magazine* to know that I have bred the Blackheaded Gouldian Finch in my outdoor aviary. The pair of birds were removed from an aviary they had inhabited for three months, into another containing Redheaded and Black-headed Goulds, White Java Sparrows, Parrot Finches, Cordon Bleus and Grassfinches on the 18th July, and on the 26th of the same month the first egg was laid, and three young birds were hatched by the third week in August. They are all remarkably strong and healthy birds, their backs already colouring green, and the violet on the breast quite observable. Mr. A. E. Nicholson states in his interesting letter of last month that the young males of this species assume adult plumage when 14 months old, which seems a long time, especially as my young birds (only 6 weeks old) already begin to show colour on the body, the heads being still the same dull grey. I may say that the old birds were remarkably tame while nesting, allowing me to lift the cocoa-nut husk off the nail on which it hung, the bird still

remaining on the nest. I have now a pair of Redheaded Goulds nesting, also a Cock Redhead and hen Blackhead with five eggs. I am anxiously looking for results, but the cold nights are trying and the season far advanced. I feed my birds on the best large Spanish canary, the small Indian millet, spray millet, with plenty of cuttle-fish and fresh lettuce daily. All the birds are in perfect health and feather, and, with the exception of four or five, sleep in the trees growing in the outside uncovered portion of the aviary, and which is exposed to all weathers; they, however, seem none the worse for the very frequent night soakings they must have experienced this season. I notice that the White Javas always seek some retreat or nest in the closed in portion of the aviary. Do these birds from the Celestial region feel our climate more than their African and Australian brothers? My birds have made many nests and laid many eggs, but they seem to lack the patience and persistency in sitting which characterize the Goulds. I have always found them extremely hardy, and not so pugnacious as most of our naturalist books tell us; although I should not advise any reader to keep them in a small cage with any weak or defenceless birds. I have always found some difficulty in obtaining the pure White Java, as nearly all those imported from China and Japan into this country are foul-marked birds. The three birds I have, one is slightly spotted the other two are pure white and very large birds. I should never hesitate to recommend them to any amateur who wishes to keep a pair of birds as pets in a small cage, for they are very tameable, have a pretty, liquid song, and a handsome appearance.

My Grassfinches have not been successful this year, for, although having several nests of eggs, no young birds have been reared.

A pair of Fire Finches nested in a small rush basket; four eggs were laid, but no results.

Will not a few more members give us their experiences this year, on the nesting and rearing of their birds in outdoor aviaries?

ELLA C. BAMFORD.

YOUNG BIRDS FEEDING NESTLINGS.

SIR,—Mr. Seth-Smith tells of some young Zebra Finches feeding their baby brothers and sisters, only a little while after they had learnt to feed themselves, and he adds, "It would be interesting to know if others of our members have noticed similar cases."

In the spring of 1899, my Green Cardinals nested, and a fine young

* Javas are very much more hardy than Goulds; nevertheless the latter will almost invariably roost in trees or shrubs where they have the opportunity, the Javas preferring receptacles of some kind. Each species has its own peculiar nature, which controls its movements regardless of weather and consequences. Goulds are particularly slow in learning from experiences.—R.P.

cock was successfully raised. He had left the nest only a few days before a second nest was built, and very soon the hen was sitting again on three or four eggs. I say "the hen" because with Green Cardinals the work of incubation is left entirely to her. Of these, two were hatched, and the young grew rapidly, needing many mealworms and cabbage caterpillars to satisfy their enormous appetites. They were about five or six days old when I noticed the child—as we called the young cock—standing on the edge of the nest with a mealworm in his beak, and calling to the young just as the parents did: a large mouth opened wide, and the mealworm was dropped in. After this I frequently saw him feeding them, and the parent birds would stand aside, if on the nest, to let him come and give his worm or caterpillar.

Mr. Green, of Bournemouth, called one day and saw this done. He was much interested, and said he could scarcely have believed it had he not seen it.

At that time the child could not have been more than from six weeks to two months old, and I think it was a very beautiful instance of unselfishness in a little bird. He thoroughly enjoyed a mealworm or cabbage caterpillar himself, yet never thought of taking one until the young were satisfied.

M. D. SHARP.

JARDINE'S PARROT.

Pæocephalus gulielmi.

SIR,—Do you think it advisable to let a Parrot brood a hen's egg? I have a Jardine's Parrot which laid an egg some time ago, and which I took away. Now, my man has given it a hen's egg, and it is brooding it in the bottom of the cage, where it has got a lot of chips of wood together, and sits on it. I am afraid it may exhaust it, all the more so as it has got into the habit of picking its breast bare for some two years past.

The cage is a large waggon-shaped one, about 5 feet high, $3\frac{1}{2}$ feet deep, and $4\frac{1}{2}$ feet wide. The bird was brought some nine years ago from St. Paul de Loanda on the West Coast of Africa. It talks German in a mumbling sort of way, but says very distinctly "Jacob." It would be a very handsome bird were it not for its breast and back being picked bare of feathers. I saw two very good specimens at the Amsterdam Zoo., and Jamrach had two about two years ago. I shall write to him for another, as perhaps having a companion might wean it from its habit. It is a very tame and affectionate bird, dances on its perch when it sees me, and gives a postman's knock against the wires or any sort of wood within its reach. It will not touch boiled maize, but prefers hemp seed and sunflower seed to any other. It has also half an apple every day, and now and then a dry biscuit and cherries, and green peas in the pod, but it does not seem very fond of grapes nor yet of dried figs.

My sister-in-law, who gave me the bird, as she thought in a very large cage or loose in a bird-room it might get rid of the habit of feather picking, wrote me the other day from Germany that a friend of hers had cured two Grey Parrots of feather eating by feeding them on crusts of bread soaked in water, and strongly advised me to keep the bird on that diet to try whether it had any effect. I have powdered it with toilet powder and Fuller's earth powder. The bird rather likes it, but very strongly objects to lanoline cream or other similar preparation with which I have rubbed the bare spots. I will put a little magnesia into its drinking water, and hope a beneficial result will follow.

You did not say what seed to give the Parrot, but I expect you meant maize and canary. At present I am giving it green peas in the pod and also cherries, but it certainly does not care for the latter nor yet for any other fruit excepting apples, which are regularly supplied. My Salvin's Amazon is fond of carrot, but Jardine's will not take to it.

August 19th, 1902.—I am sending you two eggs my *Gulielmi* laid lately. What a pity I have not a cock bird! It still pecks itself bare, although I apply lanoline every day, and have also powdered it with a very cooling powder. I have given it a great quantity of peas, both in the pod and otherwise. The eggs were laid in a box which I put into the cage to be bitten to pieces. Noticing the bird sitting as if brooding I took her out, and lo! there were two eggs. . . . (August 22nd)—Herewith another egg he Jardine laid this morning. The colour of her eye is brown.

F. MOERSCHELL.

The following are a few of the hints suggested to Mr. Moerschell:

If I may venture to advise you, I should strongly recommend that you take away the egg, nest, and everything appertaining thereto; nay, if it be practicable, put the Parrot into a strange cage, so as to divert her thoughts as much as possible. The sitting on the nest increases the fever of the body and the consequent irritation of the skin. Put fluid magnesia into the drinking water, and give fruit, so as to cool the blood.

Hemp seed is bad, as regards feather picking, and sunflower is nearly as bad. Nothing under the sun will do any good unless you stop the hemp and moderate the sunflower. I should banish them both. The bird cannot be fed too simply. Let it have canary, oats, a little plain fruit (not stone fruit), and green food, with occasional doses (in the drinking water) of fluid magnesia and fluid extract of taraxacum. I am doubtful about the lanoline, unless mixed with quassia or something bitter. It might acquire a taste for the lanoline by itself.

Of the two eggs sent to me on the 19th of August, one was smashed in the post. The other is a very round blunt egg, 1-5/16ths inch long by 1-2/16ths inch broad. The third, laid on the 22nd, is oval, 1-5/16ths inch long by one inch broad.

[The colour of the eye is interesting. Dr. Greene (Parrots in Captivity, Vol. III., p. 85) tells us: "The female cannot be distinguished by her outward appearance from her mate; but as some of these birds have brown eyes, and others have the irides of a bright orange-red colour, it is possible that the latter may be the females; and perhaps the young of both sexes may take after their mothers in this respect; in which case the eyes of the young males would become dark as they reached maturity, and those of the females retain the lighter shade."

Some nine years ago I received a letter concerning a reputed pair of these birds, in which I find the following passage: "These birds I should say are a pair, the irides of the one being orange-red, of the other brown. One has also more scarlet upon the head than the other though I think both are adult."

In the Museum Catalogue (Vol. XX., p. 366), the colour of the iris of the adult is given as light brown.

The evidence is insufficient to enable us to arrive at a conclusion. So far as it goes, it might appear that the eye of the immature bird is orange-red, that of the adult of either sex brown, and, therefore, that the species cannot be sexed by the colour of the eye. Perhaps some of our readers will state their experiences on this point.—R. P.]

WINTERING FOREIGN FINCHES OUT-OF-DOORS.

The following advice has been sent to Mrs. Sherston in reply to a query:

Although some of our members have shown that the more delicate African Finches can be wintered out-of-doors, and although I have myself known some of them to live through a good many degrees of frost, I nevertheless think it exceedingly risky to subject the more thinly feathered African Waxbills to extreme cold.

I should certainly recommend that Orange-cheeked and St. Helena Waxbills should be brought indoors for the winter; but St. Helena Seed-eaters would probably not suffer from cold, the *Serins* as a genus being naturally rather hardy.

I should not be afraid of Ribbon-finches suffering from cold, provided that they did not attempt to breed in the winter. From my own experience with them I should fear they would begin this month (September), and continue throughout the winter, if nest-boxes were available.

Virginian Cardinals are better out-of-doors than in; all I ever had (five) died from heat-apoplexy, although one of these was kept in an outdoor aviary.

A. G. BUTLER.

THE SECRETARY AND THE SOCIETY'S MEDAL.

In the last number of this journal we published a new Rule in connection with the Society's Medal, which had been carefully considered and passed by the Executive Committee of the Council. (See page 305). We did not expect any of our members to object to such a rule, and were surprised to receive a letter from the Rev. C. D. Farrar, protesting strongly against it, and asking if it had been passed by the Committee or was merely the work of the Hon. Secretary. To this we replied that the Rule was passed by the whole of the Executive Committee, and that we considered it a perfectly fair and necessary rule. We have received the following letter in reply to this, which, not being marked private, there can be no objection to our publishing. We publish also a reply from the Hon. Secretary.

We may say that we strongly object to Mr. Farrar's attitude in this matter, and if the Society's Medal is going to cause ill-feeling amongst our members we shall consider it our duty to put before the Council the advisability of discontinuing to award a Medal at all, though this would be a pity.—EDITOR.

Micklefield Vicarage, Leeds, Oct. 18th, 1902.

SIR,—Thanks for your letter of to-day. I do not consider that the Executive have any right to make rules apart from the rest of the Council. It seems to me that the Executive now does just as it pleases, and it puzzles me and a good many more to know what good the rest of the Council are.

I am a member of the Council, but I am never consulted on any single point. I was once summoned to a meeting in London, and that is all. I feel very sore, indeed, on the way the affairs of the Society are conducted. It seems to me that the Council are mere dummies, with three exceptions.

With regard to the Sydney Waxbills, I do not see why Mr. Gedney is not to be believed quite as much as Mr. Wiener; for example, Mr. Phillipps refused me a Medal because he said Mr. Wiener said he had bred them—Malabar Mynahs; also I was denied a Medal for breeding Dhyals, because Mr. Phillipps said *the Zoo had bred them*. Would anyone believe, who knows anything, that the Zoo could REAR such birds as Dhyals! and yet I had to sit down under Mr. Phillipps' dictum! I think what is sauce for the goose is sauce for the gander, and I for one, consider that, unless disproved, Mr. Gedney should be believed as much as Mr. Wiener or the Zoo.

Also I think that it would be more satisfactory to members if somebody saw the birds alleged to be raised. I always bring witnesses; why not others? It hardly seems right that a man should award a Medal to himself.

With regard to the new rule, I can see *nothing unfair* if a friend likes to lend you a pair of birds to breed off, on the strength of your skill. After all, the object is to breed a new species; not to enquire to whom the old

birds belong. Your argument cuts both ways. Suppose you are a very rich man and I am only a poor one, it is *most* unfair that you should be able to buy birds *that I cannot afford* to and so get a Medal.

After all, the new Rule is only the outcome of petty spite and jealousy.

Yours faithfully,

C. D. FARRAR.

SIR,—In the two letters which you kindly forwarded for my inspection, the Rev. C. D. Farrar brings certain charges against me as Secretary; and it seems desirable that his inaccurate statements should be publicly refuted.

Referring to the new Medal Rule which was published on p. 305 of our last number, Mr. Farrar (I am writing from memory, having returned this letter to you) accuses *me* of having imposed the Rule on the Society, and says that it is *scandalous* that one man should be allowed to do this and that, and much more to the same effect. *The Rule was passed by the Executive Committee*; even the thought of it did not originate with me, though I fully approve of it, and, after reading Mr. Farrar's letters, see the necessity for it.

Mr. Farrar objects to a Medal being awarded me for having bred the Australian Waxbill. He is quite at liberty to object, but his offensive manner of doing so is inexcusable. He founds his objection on Mr. Gedney's statement that these Waxbills "have been bred by every one who has tried the experiment, but all the instances recorded have occurred where the birds were bred in rooms, and as my own experiences are limited to similar conditions" etc. etc. Now all the "recorded" instances are the partially successful ones of Dr. Russ *in Germany*, to which I referred at p. 290. If Mr. Gedney's "own experiences" had been only partially successful, he would most certainly have referred to the plumage of the young birds. He does *not* state that he bred the species.

Mr. Farrar writes,—“Mr. Phillipps refused me a Medal because he said Mr. Wiener said he had bred them (Malabar Mynah); also I was denied a Medal for breeding Dhyals because Mr. Phillipps said the *Zoo had bred them*. Would any one believe, who knows anything, that the Zoo could REAR such birds as Dhyals? and yet I had to sit down under Mr. Phillipps' dictum!”

On these two occasions I was not Secretary. Why then is my name brought forward any more than that of any other member of the Executive? I do not remember about the Malabar Mynah, but I observe that, after some years of failure, Mr. Wiener did eventually succeed in rearing a brood of three. But what has that to do with Mr. Phillipps!!! And what does Mr. Farrar mean by his expression, relative to the Dhyals, “Mr. Phillipps said the Zoo had bred them!” In the Zoological Society's

"List," at p. 213 of the Eighth Edition, it is recorded by the Society, not by Mr. Phillipps, that two were "Hatched in the Gardens, May 23, 1873. (First time of breeding)." I was told, rightly or wrongly, that one of these two was reared. Of course it would have been my duty, as a Member of the Executive Committee, to bring this under notice, or, if I did not, somebody else did. But *my* chief objection to a Medal being awarded off hand, as the then Secretary seemed about to do, was because it was doubtful, from Mr. Farrar's own account (Vol V., p. 145), whether he *did* rear the young birds to be independent of their parents as required by the Rule. The young (two) were killed by the cock on the floor. Judging by the Shâma, Mr. Farrar had by no means been fully successful, and therefore, irrespective of the Zoo, had not qualified himself to be a recipient of a Medal!

Mr. Farrar goes on: "I think it would be more satisfactory to Members if somebody saw the birds 'alleged' to be raised. I always bring witnesses; why should not others? It hardly seems right that a man should award a Medal to himself." The last clause seems to indicate that this is intended especially for me,—doubtless because in the past, and especially some weeks back, I resisted Mr. Farrar's defiant evasions of the Medal Rules and disregard for them. And what is more, let me tell him that I will continue to do my duty and uphold the Medal Rules in spite of his offensive suggestions. So far as my young birds are concerned, *they have been seen by several Members*, the young Wren (in the house) by quite a number, for during the past summer my birds have been visited by *many* Members. Mr. Farrar says "I *always* bring witnesses." Does he? He has but a poor opinion of some of our memories. And there is one point which Mr. Farrar regularly avoids—witnesses, or even a definite statement, that his young birds have been *fully* reared as required by the Rules.

On what authority does Mr. Farrar accuse me of awarding a Medal to myself? Will he oblige me by stating when I ever did such a thing? In every case I make preliminary enquiries of the Members of the Executive before it is stated in the Magazine that a Medal is "proposed." After the publication, I send a Circular Letter to the Members of the Executive, asking the direct question whether it is their will that a Medal be awarded, and each Member of the Executive gives a written reply. Of course, like almost every thing else, I have to start the machinery and carry the business through, but it is the Executive, not I, who *award* the Medals. And yet Mr. Farrar accuses me of awarding a Medal to myself!

A day or two before I saw Mr. Farrar's second letter, I had started off my usual Circular to my colleagues asking if it was their wish that a Medal should be awarded in the four cases "proposed" last month; and I especially referred to Mr. Farrar's objection (first letter) in the case of the Waxbill. Whether they will award a Medal for the Wren and for the

Waxbill I cannot say, but I can say that, as a protest against Mr. Farrar's continuous objectionable remarks (which now we never fail to delete from the proof sheets) concerning other Members of the Society, who toiled in the dark and laboured at aviculture years and years before he was ever heard of, and the fruits of whose labours he now reaps, I decline to take a Medal for either the Wren or the Waxbill, whether awarded or not. I do not keep my birds for Medals. The pleasure in watching the friendly little Waxbills and the timid and fragile little Wren, and Mr. Grönvold's exquisite painting of the latter and its parents, are better to me than any number of Medals.

REGINALD PHILLIPPS.

IMPROVEMENTS IN THE MAGAZINE.

SIR,—May I have a short space to answer one sentence of Dr. Salt's letter, viz., the one referring to the covers going the way of all covers to the w.p.b. as waste. No bookbinder who understood his art would do such a thing in binding the *Avicultural Magazine*, but would on the contrary carefully preserve them and bind them in at the end of the perfect pagination. Any binder who did otherwise with my numbers would have the volume returned, with a request for fresh copies bound in a proper manner, as indeed I had to once.

As a bibliophilist, as well as an aviculturist, I do not see why an engraved cover should get roughened and dirty, except by improper and careless treatment. My books, and those of any book lover, are kept in "mint" condition.

Whilst agreeing that the interior could be improved, for nothing is perfect, I would ask Dr. Salt to compare the volume just ended with any earlier one he likes to take, and make a comparison both as regards literary matter and illustrations.

One who would cavil at an engraved cover afterwards, must indeed be hard to please.

P. WELLINGTON FARMBOROUGH.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case.

If a reply by post (in addition to any Report that may appear in the Magazine) be required, a stamped and addressed envelope must likewise be sent.

DIAMOND DOVE. (Mrs. Rathborne). [Cause of death was apoplexy. The injury to top of the head being caused by the fall].

ROSEATE COCKATOO. (Miss Tate). [Your bird died of acute inflammation of the liver].

CAROLINA DRAKE. (Mrs. Stanyforth). [Congestion of the lungs was the cause of death].

GREEN AVADAVAT. (Mr. M. E. Rycroft). Found dead; for some time the bird had not flown, but seemed in perfect health. [Apoplexy was the cause of death].

MADAGASCAR LOVEBIRD. (Mr. C. Dell). Found on ground unable to fly; wing injured and bleeding slightly; lingered until the following day. [Enteritis—inflammation of bowels—was cause of death].

WHITE TURKEY. (Lady Lilford). Ill about four days; fed on Spratt's meal, wheat, maize, and barley. Five others have died in a similar way. [Extensive tubercular disease of liver and mesenteric glands. Should strongly advise complete change of stock].

PEACOCK. (Rev. T. C. Lewis). Found dead in the grounds, the body still warm. [Bird was having a rather hard moult. Cause of death was acute inflammation of the bowels].

YELLOW-FRONTED AMAZON PARROT. (Mr. F. C. Thorpe). Has been mopey for some time, sometimes better then worse; all at once it lost its voice, gradually getting weaker until it died. [Your bird was suffering from fatty degeneration of the liver. In all probability chill, with extra strain of a difficult moult, hurried on the fatal termination; but without these factors, she could not have lived much longer, as the disease was much advanced].

CORDON BLEU, Cock. (Mrs. Howard Williams). Found dead. [Concussion of brain, caused by an injury to the side of the head, was the cause of death].

PARSON FINCH. (Mr. Dell). Found dead. [Concussion of brain was the cause of death. Probably frightened by mice, as you suggest, and during flight came in contact with something hard].

BUDGERIGAR. (Mr. Dell). Found dead in morning after a heavy nights rain. [Bird died of concussion of brain. No doubt disturbed during night. These birds are very wild when frightened in the dark].

PECTORAL FINCH. (Mr. Mathias). No particulars. [Bird died of acute inflammation of liver and jaundice].

JAVA SPARROW. (Mr. Porter). Found on aviary floor, and died a few minutes after. [An apoplectic fit, with extravasation of blood on the brain, killed the bird].

PEKIN ROBIN. (Mr. Mathias). Found dead. [Acute inflammation of the bowels caused death].



HOODED SISKIN. ♂.

Chrysomitris cucullata.

From a water-colour drawing by the Rev. H.D. ASTLEY.

Avicultural Magazine,

BEING THE JOURNAL OF THE

AVICULTURAL SOCIETY.

New Series.—VOL. I.—No. 2.—All rights reserved.

DEC., 1902.

THE HOODED SISKIN,

Chrysomitris cucullata.

By the Rev. HUBERT D. ASTLEY, M.A., F.Z.S., M.B.O.U.

Even if somewhat broken down in health, the enthusiastic cage-bird lover, unless confined to his bed, is always on the look out for something new, especially if he or she find themselves in a new country.

And so it happened that my search for new health and new birds seemed to go hand in hand on my arrival at Santa Cruz, the port of the far-famed Island of Teneriffe, in the last days of 1901.

It was more amongst birds dropped by the coaling vessels, the merchant ships, etc., that I hoped to find something new, than among the wild birds indigenous to the Island.

Santa Cruz, pronounced, in correct Spanish, "Santa Crooth," is a halting spot for multitudinous ships, plying from England, Spain, Italy, etc: to Africa and America, and *vice versa*; so that we may find on board these vessels birds from Mogador and the West Coast of Africa, birds from South Africa, and more especially from South America.

Going to the Canary Islands, I certainly did expect to see Canaries. Nor was I deceived in my expectation, though I did believe the Canary Islands could exist without the birds; unlike a certain lady who gravely supposed that the latter had given their name to the former, which would be equivalent to thinking that Queen Victoria had been named after Victoria Park. But Canaries, real genuine wild ones, there certainly are.

In Santa Cruz it is a common cage-bird, and on driving out of the town, it very soon makes itself either heard or seen in a state of natural freedom. At first sight, a flock of these birds might be mistaken for a flock of Linnets when flitting from tree to tree, or gathering together on the rocky ground, picking up stray seeds of various plants.

In January and February, some of the Canaries have already paired off on the lower ground of the Island, whilst hundreds of others are still in large or small flocks; and a very pretty sight and sound it is to see perhaps hundreds of these little greenish-grey birds sitting on the still bare stems of a large fig-tree amongst the wild desert-like ground, bestrewn with tufa and lava, and to hear probably twenty male birds all twittering and singing together, whilst others give vent to many a 'tweet,' bringing back nursery days and one's first cage-pet.

Turned towards the sun, the males are easily recognisable by the bright touches of yellow on their breasts. And whilst this wintry scene of gathered birds is going on, many pairs have stolen away from that tuneful concourse (which makes one think one is in close proximity to a vast aviary, or Canary-breeding establishment), and already in January are building a compact nest of moss and interwoven grass and lining of feathers, perhaps amongst the top branches of an orange-tree in some garden.

The scene is wintry only because of that flocking together and assembled concourse of fluttering wings, and in no other way, for the usual January temperature, which month in Teneriffe pretends to call itself a winter one, is somewhere about 60°; and even *stuffy* people are glad to keep their windows open at night.

So much for the Wild Canary! "and where does the Hooded Siskin come?" Not until the 3rd Act. He delays his appearance like a great actor or Prima Donna. The scene of Act ii. is laid in a greengrocer's shop in Santa Cruz—a greengrocer who appears to be the only person there publicly calling himself at the same time a bird dealer. When his vegetables run out and perhaps his fruit, then he turns an honest piastre, or otherwise, by the birds.

It's dirty there in that off street; it savours at the very *least* of rotten cabbages, and there's nothing much worse, but the oranges and bananas, piled amongst the vegetables on either side of the steps leading up into the big shop, are fresh and good. The shop when one enters is like a large scullery, or bare kitchen, bare except for fifteen or sixteen cages hanging on the walls.

In some there are yellow Canaries (which are *not* wild!) commencing to build, some indeed are already sitting. Then, in larger cages again, there are fluttering jumbles of West African birds, Fire-finches, Lavender-finches, Weavers and Whydahs, and also a Combassou or two.

But it is to three birds in three smaller cages that I am chiefly attracted, after having ascertained that amongst the West Africans there is nothing but what one can see any day in London. Are they Canaries, these three? A variety or species of Wild Canary that I have never seen? or has the Santa Cruz greengrocer been feeding the ordinary Wild Canaries on cayenne, or has he been dipping their bodies in saffron dye, or have the last rays of the setting-sun caught them to leave this golden-orange tint all over. "What bird is this?" I ask. "Mr. Canaria," is the answer! Is the man laughing at the Señor Ingles or is this his way of informing me that it is a Canary of the male sex?

Then, through an interpreter, I gather that it is 'Mista' or mixed; in other words a hybrid Canary. "Mixed with what?" "A Cardinal." "A *Cardinal*? Surely not!" For the birds look like Wild Canaries in form and size and carriage, and indeed in voice too; the 'sweet' of the Canary is unmistakable.

But I am assured—"Si, si, Cardenal; a misto Cardenal." "Yes! yes! a Cardinal." "What colour is the Cardinal?" I ask. "Red, all red, and a little black." Can he mean a Virginian Nightingale, a Red Cardinal? It would seem so.

I purchase one of these 'Mista Canaria'; I might go further and say one of these mysterious Canaries, with a determination to find out the father.

The mother is a Wild Canary. And so the curtain drops on Act ii., with much debate between the scenes, as to what Act iii. will divulge.

Between the 2nd and 3rd Acts, a day elapses (as they write on the play bills).

It was on the following day, as I was driving down one of the principal streets of Santa Cruz, that I caught a passing glimpse of a brilliant little bird in a cage which was hanging outside a bootmaker's shop: and I knew that Act iii. had begun. Just a flash of flame colour, or that of a good orange nasturtium. "Stop," I shouted, "Stop." "El pajaro." "The bird": it was the first Spanish word I had studiously committed to memory.

It was rather a case of "spit it out," for the 'j' in Spanish sounds somewhat like the 'ch' of a Scottish 'loch.' "¿Que pajaro es este?" I stuttered, wildly turning over the pages of a conversation book. "Cardenal," was the reply.

Enter the hero! amidst loud applause.

The owner was an ancient person, as ancient as the bird; for all that, I tried to purchase the latter, but met with a quite definite refusal; not departing however before I had discovered that this was actually the species that is mated with the Canary, producing the 'Mista Canaria.'

I at once commissioned the Manager of the hotel where I was staying to try to procure me one, and some two or three weeks afterwards the brilliant little bird, whose portrait I have tried to paint, appeared at Güimar, a small town on the S.E. of Teneriffe, where I was staying. The same day of his arrival he sang gaily, and has done so ever since up to the moment of writing this in September.

On studying him at closer and more intimate quarters, I came to the conclusion he must be certainly allied closely either to a Siskin or a Goldfinch. His movements and song resemble both, and his general characteristics. A most charming gay little bird, about the same size as his portrait, if not exactly the same. These 'Cardenals,' as the people of Teneriffe call them,



ADULT BAHAMA OSPREY.
Pandion carolinensis.

Photo, by J. L. Bonhote.

Bale, Sops and Danielson, Ltd.

come from South America, "from Caracas" I was told, but the full identity of the hero of the play was not revealed.

There was a 4th Act! an Act in which Mr. Phillipps was stage-manager. I roughly painted a sketch of my bird, sent it to him, and received a reply that it is undoubtedly a Hooded Siskin of Venezuela and Caracas.* The bird is a male (a Mr.!), and it would seem that the females are not imported, and are of much duller tints. Why this species has not been carried on in some of the ships to England is curious. That it is not, would seem to be the case, for I never saw one in any London bird-dealer's shop, which fact Mr. Phillipps corroborates.

In Santa Cruz it is thought much of.

THE SPOTTED-WING.

Psaroglossa spiloptera.

By Dr. A. G. BUTLER.

Towards the end of July of the present year I received a letter from our Member, Mr. E. W. Harper, in which he said—"I have a Spotted-wing (*Psaroglossa spiloptera*) which I wish to give away to a good home. As the species is not common in this country, it occurred to me that you may not perhaps have kept the bird. If you would like the Spotted-wing, I shall be delighted to send it for your acceptance."

Naturally I replied that I had always been interested in the various birds of the Starling group, and should be delighted to have it. In a letter, informing me that he was sending off the bird, Mr. Harper informed me that he considered the affinity of *Psaroglossa* to the Starlings very doubtful; as it was a hopping bird and did not use its mandibles as dividers after the manner of Starlings.

The bird reached me on August 1st, and the food in its cage gave me a good idea as to the proper method of feeding it: I turned it into a flight-cage, supplied it with my usual soft-food

* Vol. viii., p. 123.

mixture, half an orange, a few grapes, and one or two meal-worms. The bird seemed weak; and, until it had taken a bath, was unable to fly up to the lower perch (perhaps 18 inches from the sand-tray), later it managed this feat, and thence easily flew to the upper perch on the opposite side of the cage.

Watching this interesting bird, I quickly came to the same conclusion as Mr. Harper; the bird's actions were, in every respect, those of a Bulbul rather than a Starling; it moved even on its perches by (lateral) hops: when eating it pierced the fruit with slightly opened mandibles, the tongue exerted and then retracted; the bill closing upon the enclosed fragment of fruit, then withdrawn and almost immediately plunged in again for the next mouthful. This action is exactly opposite to that of a Starling, which always pierces with closed bill, then opens the mandibles to divide the food and afterwards picks up the small fragment separated from the bulk of its food. The habit of dividing up fruit, or tough portions of food, such as pips, bread or biscuit, is characteristic not only of the *Sturnidæ* but of the *Icteridæ*.

Another Starling-like characteristic which is wholly wanting in the Spotted-wing, is the apparently aimless and undecided way in which the *Sturnidæ* and *Icteridæ* usually approach their food, trotting backwards and forwards, perhaps two or three times, round the saucer before making up their minds as to what they will begin upon: *Psaroglossa* always flew straight to one side of its food-vessel and started feeding at once: it did not eat a great deal of the soft mixture, but every scrap of fruit, excepting banana, which I supplied. Occasionally it would eat banana, but not if there was plenty of other fruit handy. When ripe oranges failed and I had to substitute pear, it fought shy of the latter for one day; but, on the following day, when I cut a ripe pear through the middle so as to show the pips, it cleared out this fruit to the skin and never subsequently failed to eat all that was given to it.

Watching this bird as I did, I was distressed to notice that it did not appear to grow stronger, in spite of the amount of food which it consumed. As I knew the value of spiders as a pick-

me-up for insectivorous birds and other soft-food eaters,* I gave it not only specimens of *Epeira* and *Agelena*, the two forms of spider most readily obtained, but several green caterpillars; but in spite of all it grew weaker until it could hardly reach its perch, often failing in its first attempt; its wings drooped more and more, it failed to replace a few small feathers missing from the back of its crown, and at length, to my horror I came down on September 25th to find it lying with its feet up across the top of its drinking-pan, dead as Queen Anne.

Early in the month I had written to my friend and late colleague in the Natural History Museum, Dr. R. Bowdler Sharpe, telling him of Mr. Harper's kind present and of the conclusion which he and I had come to, after observing the bird's habits, that it had been incorrectly referred to the Starlings. Dr. Sharpe replied—"My dear Butler: If the *Psaroglossa* dies, please let me have it for Pycraft to find out its natural position. The first evening I can spare, I must come down and see it. Oates considers it a kind of Babbling Thrush." When it died, therefore, I sent the bird off without delay to Dr. Sharpe. It will be interesting to see what he discovers from its anatomy. To my amateur, if somewhat artistic eye, the form of the bill suggests a Bulbul rather than a Starling and it is satisfactory to know that experienced ornithologists regard the bird as probably one of the Babbling Thrushes.

As regards its habits, Dr. Jerdon, who called the bird "The Spotted-winged Stare," remarks as follows:—"This bird is found only in the Western and Central Himalayas. It is not known in Sikhim. It frequents the valleys about Simla and Mussooree, up to 6,000 feet, lives in small flocks of five or six; its note and flight, says Hutton, "are very much like those of *Sturnus vulgaris*, and it delights to perch on the very summit of the forest trees. I have never seen it on the ground, and its food consists of berries. It nidificates in the holes of trees, lining the cavity with bits of leaves cut by itself; the eggs are usually three to five, of a delicate pale sea green, speckled with blood-like stains, which sometimes tend to form a ring near the

* In August I saved the life of one of my Scarlet Tanagers and restored it to perfect health by giving it plenty of spiders and a few mealworms.—A. G. B.

larger end. Dr. Adams says that it frequents rice fields, or the sides of mountain streams, and that it is shy and timid."

The above account indicates some features in common with Starlings: the voice is harsh and abrupt, not strikingly resembling that of *Sturnus vulgaris* to my ear, rather one might say it resembles the scolding note of the Crested Mynah,—a sound most irritating to me from its parrot-like raspiness. As for the flight, I had no opportunity to observe it in a cage, but that of *Sturnus vulgaris*, which always reminds me of that unambitious rhyme "Twinkle, twinkle, little star": etc., is so distinctive, that it would be difficult to suppose that Mr Hutton could have erred respecting it.

The colouring of the eggs seems to separate *Psaroglossa* from the typical Starlings; and I should judge (from their marked character) that although this bird may nest in holes in trees, they must be very shallow holes; and not such as *Sturnus vulgaris* selects for its unmarked eggs.

Take it all round, I think there is, at present, very little evidence for the Sturnine affinities of *Psaroglossa*; but I suppose dissection will throw a clearer light upon this question.

So far as I have been able to ascertain, the Spotted-wing has never found its way to our Zoological Gardens; and Dr. Russ does not mention it in his latest work on soft-food cage-birds.

FIELD NOTES ON SOME BAHAMA BIRDS.

By J. LEWIS BONHOTE, M.A.

PART III.

The next type of country into which I would ask the reader to follow me is one which is frequently met with in these islands, viz., the swamps and lagoons, where may be found many of the most beautiful and interesting species of birds. The country is somewhat peculiar, so I may perhaps be excused if I dilate a little upon it before treating of its inhabitants. The Bahamas, as we noticed before, are essentially different in their formation from the other West Indian Islands, being formed, according to

Professor Agassiz, of wind and waved-tossed coral sand, which, having been left high and dry by the action of the tides and currents on the shallow banks, has been converted into solid rock. Owing to this formation, there is no high land in the group, and a considerable portion of many of the islands lies below the level of the sea. In most cases there is a seaward ridge, which shuts out the sea altogether. In other cases a subterranean passage exists, so that large tracts of country are converted into lakes that rise and fall with the tide, leaving a rich feast along their banks for many species of birds; finally in other cases breaks occur in the ridge, forming narrow channels or creeks, which open out, behind this barrier, into large branching and shallow lagoons, so that the whole country for miles round becomes a mere mass of scattered islands, and enormous tracts of swamp are laid bare with each tide. Along some of these lagoons a boat can go, but, as they are for the most part entirely unexplored, one is very liable to be stranded by the falling tide; the most satisfactory way of getting about is to wade, there being but few places where the water is more than thirty inches deep and as an average it would barely exceed six inches. The bottom consists of rough rock, covered with weed or mud, and though the walking is of the worst, it is not treacherous. The adaptability of plants to their localities is nowhere better exemplified than in these islands. Were the rock and soil that is found there to be brought over to this country, I doubt if even our hardiest seeds would succeed in establishing themselves. In that country, however, it is different, and wherever land is found sufficiently elevated to be beyond the reach of the high tides and heavy floods, there the luxurious coppet flourishes. At a lower elevation (we are only dealing with elevations of inches!!!) in country flooded by the heavy rains of the wet season we find a thick tangle of coarse grass and palmetto, the latter a most useful tree, without which the explorer in these parts might fare badly, for it formed, on occasions, our shelter, bed, fan, tinder, string, etc., and the number of uses to which the natives can put it is practically unlimited. Lastly, in those places which are covered every tide, grows the universal mangrove, stretching out often for a mile or more in an unbroken even line about two feet high,

its horizontal roots lacing and intertwining in all directions, while at other times it rises up in large clumps some twenty or thirty feet high, forming islands in the centre of the lagoons. Such, then, is the general aspect of the country, and, I trust that I have not tried the reader's patience ; but, in my opinion, an idea of the country in which a bird lives is as essential for a proper appreciation of its actions as a description of the habits themselves.

I well remember my first landing in this country of lagoons ; it was towards evening, and, after crossing the beach and the ridge, I came upon a large lagoon. There were not many birds to be seen ; a few Grey Plover were piping round about, and on the beach, which I had left, a small flock of Turnstones were following the receding tide. Except for these, there was little life, but across the lagoon, in the distance, I saw a large white bird, and, by the aid of my glasses, made it out to be a White Heron. Unless one has seen them it is impossible to convey in words the beauty and grace of the White Egrets in their native wilds, where, standing out white against the dark green background, they can be seen and watched at a distance of many hundred yards as they slowly walk along the edge of the water, now darting out their long necks with unerring aim at some passing insect or fish, now standing stiff and erect while looking with curiosity at the unusual sight of a human form. Sometimes, without apparent reason, one of them would jump in the air, race along for a short distance, and stopping suddenly, flap his wings at the same time so that he appeared to be dancing and full of exuberant spirits at being alive. When in pairs this dance was frequently carried on, so that it is evidently a courting measure, and, during its progress, the gorgeous Egret plumes would be erected and shown off. I venture to think that if those ladies (and I sincerely hope there are none in our Society) who wear the batches of Egret plumes in their hats, were to see the true display of these birds, they would appreciate the impotence of man to show off the beauties of nature, and, let us hope, give up the attempt. Many charming ornithological pictures recur to my mind while writing these articles, but none (not even excepting the gorgeous Flamingoes)

give me more pleasure than those of the White Egrets sporting about with that fearlessness of man who is threatening their extinction.

The bird, whose actions I have so feebly portrayed, is not the bird from whom the elongated plumes are generally procured, but a nearly allied species, the Reddish Egret (*Ardea rufa*). The true Reddish Egret is a bluish bird with a chocolate coloured neck, and the white specimens were for a long time supposed to be the young, but as both forms have since been obtained in the adult, as well as the young, plumage they are either varieties of one species or two closely allied species.

Several other Herons were met with in these lagoons, but none so tame and confiding as the above. Of these the commonest was perhaps the Violet-crowned Night Heron (*Nyctiardea violaceus*), whose harsh scream was frequently to be heard at dusk. Although very beautiful, it can hardly be styled an interesting bird, and spends most of the day among the thickest cover, generally mangroves, wandering abroad towards evening. It is rather more partial to the sea shore than the other Herons, where it feeds chiefly on crabs, and is often shot by moonlight by the natives, who esteem it for food. Never having summed up courage to try it, I cannot speak of it as an article of food from personal experience, but I should imagine the flavour to be very strong. The nest is built low down on a mangrove, a small isolated bush being generally chosen, round which, before the eggs are laid, the birds may usually be found. It is sometimes stupidly tame, hardly realizing one's approach, or expecting, by remaining motionless, to escape notice, and so still do they remain, that on one occasion I was enabled to fulfil the proverb of catching one by the application of salt to its tail, or rather my hand on its legs, which latter method seemed to me the more efficacious.

The little Green Heron (*A. bahamensis*) is a charming and common species, of which the Bahama form is quite distinct from that found on the mainland. Abundant everywhere, it was always to be seen darting out of some mangrove bush as one disturbed it, or wandering along the shore recently left by the

tide. In this last place it looked more like a Rail than a Heron, and if not too suddenly disturbed it would run to the nearest shelter with its neck held low in front, and as soon as some sheltered spot was gained, often under the shadow of some rock, it would draw in its neck, and, bunching itself up, remain motionless. When among trees its method of concealment was precisely the reverse, and instead of bunching itself up in a dark shapeless mass, it would stretch upwards to its full extent, becoming as thin and long as possible and appearing like a branch of the tree itself

The Great Blue Heron (*A. herodias*) is also numerous throughout the islands, but is without exception the wariest bird I ever met with. Most of the individuals seen are immature, and I doubt if it breeds nearer than Florida. Another fairly numerous species, especially in summer, is the Louisiana Heron (*A. tricolor*). This is a small bird of most graceful flight, and nothing can exceed the delicate beauty of its breeding plumage; the whole colour of the neck and upperparts is a delicate blue, the longer Egret plumes having a tendency to pale rufous, as have also the elongated feathers at the base of the neck. The chin is white, shading into rusty, and forming a narrow stripe down the neck. The crest is short, being only about three inches long; in colour it is white, each feather having a rusty tip. The whole of the underparts are of a perfectly pure immaculate white. When alive all the blue portions are tinged with a delicate plum-like bloom which adds a handsome finish to the graceful beauty of the bird. In this species the bare skin in front of the eye, yellow at other times, is, during the breeding season, bright ultramarine blue, and the bill itself is deeply tinged with the same colour, causing the bird to be erroneously described as new some years back under the name of *A. cyanirostris*. The blue colour (present only during the breeding season) in the skin of this and several other species, e.g., the Green Heron, and in a less degree in the Reddish Egret, is worthy of note as it has hitherto been considered as an established fact that blue pigment did not exist among birds. In winter the Louisiana Heron is generally to be found in flocks of twenty or more, almost invariably congregated on one of the large mangrove islands noticed above. They are very tame

allowing a close approach, and, when disturbed, settle again in the water or on the neighbouring bushes ; where it is astonishing how well their colour harmonises with their surroundings, so that until they move they are practically invisible. Their flight is slow, weak, and undulating, the apparent undulation being to a great extent caused by the wings raising the body when they are depressed and *vice-versâ*, so that we have a state of things analogous to "the tail wagging the dog." The nest is placed in the large clumps of mangrove about seven or eight feet from the ground, but in the breeding season they do not appear to be gregarious.

The eggs and nest resemble that of most Herons. I found a nest on one occasion, however, in a somewhat curious place, namely, in the side of an Osprey's nest. A few of the sticks from the larger nest had caught in one of the boughs supporting it, and on this a Heron had built up its own nest partly with new material and partly by abstracting materials from the side of the other ; neither nest being occupied at the time of my visit, I cannot say whether both nests were in use simultaneously or not.

The Osprey or Fish Hawk (*Pandion haliaetus*) is practically the only bird of prey which inhabits these wastes, and they are by no means abundant. The form found in the Bahamas is resident and differs from the continental form in the head being pure white instead of brown. Although a fine bird, the flight is somewhat heavy, and, owing to its size, it appears rather cumbrous and unwieldy in spite of its actions being similar to those which are so pleasing in the Kestrel.

When fishing it soars round in large circles till a fish is seen ; it then gradually narrows the circle, and finally, before the stoop, hovers like a Tern for a few seconds till it dashes into the water, whence it emerges, if successful, with a struggling fish, which it takes to some quiet spot to devour.

The nest is an immense structure some four or five feet in height and placed, so far as my experience goes, as high up in a bush as possible, though other observers have stated to the contrary. It is merely a shapeless accumulation of rubbish and

dead twigs forming on the top a roughly circular platform some two or three feet in diameter. Three appears to be the usual number of young, and incubation commences towards the beginning of December. The photograph which appeared in the last number will give some idea of the nest and the mangroves among which it was placed ; one of the young from that nest is now alive and well in my aviaries. The first photo. in the present number represents an adult bird which was captured after being slightly hit in the wing ; but I did not succeed in keeping it alive.

Before they are fledged, the young have a peculiar habit, when annoyed or alarmed, of sitting up on their tarsi, and holding their heads vertically downwards, drooping their wings at the same time, and in this attitude they remain motionless until the cause of alarm has passed away. In the nest they are very quarrelsome, pecking viciously at each other for no apparent reason ; after leaving the nest, however, they roam about in family parties, and, if met with under these circumstances, the old ones will hover round the intruder uttering their plaintive cry, which much resembles that of the majority of the *Raptores*.

As will be readily understood, small birds are almost entirely absent from these regions (the thick bush excepted), and in all my wanderings I have hardly noted half-a-dozen species. One kind alone is at home here and was not found elsewhere, namely the Summer Warbler (*Dendroeca petechia*) or one of its nearly allied races. This species is quite the brightest of the Warblers met with in the Bahamas. In its general tone it is bright yellow, tinged with greenish on the back, while the neck and flanks are more or less striped with chestnut. It is a sprightly little bird and looks a veritable jewel as it darts to and fro in the dark thick tangle of the mangroves among which it lives.

The Red-winged Starling (*Agelaius phoeniceus*) is another of the mangrove and swamp-loving birds ; the male is pure black with a gorgeons blaze of scarlet on the upper wing coverts, which is only displayed when flying or when pouring out its rapturous, if somewhat unmusical, song. The females and young males are very different in appearance, being of light brown in colour with



NODDY TERN.
Anous stolidus.

Photo. by J. L. Bonhote.



lighter stripes. This species is a strong flier, and when disturbed, often flies long distances ; they have also a habit of running on the ground among the roots of the mangrove, so that even if you have watched a bird into a particular bush, it may be no easy matter to get a glimpse of it on a nearer approach.

The Belted Kingfisher (*Ceryle alcyon*) is frequently met with during the winter, although it can hardly be considered common, and is, as a rule, a very shy and wary bird, flying out of the tall mangrove clumps long before close observation has been possible ; and, making its way with long undulating flight to the shelter, it will settle, and by its chattering alarm the whole neighbourhood. When fishing they would remind me very much of a Kestrel, or other small hawk, for which I have at times mistaken them ; they hang over the water with rapidly vibrating wings and, making a downward swoop, rise again to a similar elevation some thirty or forty yards farther on, and thus work along the shore of the lagoon. When a fish is seen they make a swift dash at it, and, if successful, they almost invariably retire to a conspicuous position to devour it.

As would be naturally expected, these large and shallow lagoons abound during the winter with Ducks, and although a good many species occur, only three or four of them can be called common, and foremost amongst these is the Bahama Duck (*Dafila bahamensis*). This fine Duck is probably well known to many members, as it is frequently imported. In colour it is light brown, spotted all over with a darker shade with the exception of the tail, which is lighter, appearing conspicuously so when on the wing, and the sides of the face and throat, which are pure white. The beak is black with a bright triangular crimson patch at the base of the upper mandible ? in some specimens this patch is much paler, or even yellow. Although belonging to the genus *Dafila*, *i.e.*, true Pintails, the central tail-feathers do not greatly exceed the others in length, and are hardly more pointed than those in many other genera. These Ducks, which are met with in flocks of from half-a-dozen to several hundreds, inhabit, as a rule, the inland lagoons, being found more rarely on the sea shore ; they are fairly tame, and

generally allow one to get within easy distance, but the larger the flock the more difficult it is to approach them.

Another species to be found in similar situations is the Tree or Whistling Duck (*Dendrocygna arborca*), which, from its size and the length of its legs, more resembles a small goose. It is a very dull-coloured bird, of which the sexes are alike, and is brown on the back and light below, with dark markings on the flanks ; it is fairly numerous, though occurring in much smaller flocks than the last species ; on the wing the flight is excessively heavy and seldom long sustained.

The only other species to which I need call attention is the Scaup (*Fuligula americana*), a bird very numerous on the lagoons in close proximity to the open sea. As with us in England, it is much more of a sea-loving bird than either of the foregoing, and its number on the lagoons is always greatly augmented after a storm. It is shy and wary, and, from its habit of keeping to open places, very difficult to approach, and when shot the flesh is too strong to be eatable.

When wandering through the mud after duck, several other kinds of birds are met with, which perhaps deserve passing mention. The American Coot, a bird closely resembling our well-known species, is abundant on many of the lagoons, from which they never seem to wander during the winter ; but in spring the majority migrate northwards, although a few remain to breed. Another, but scarcer bird, is the Florida Gallinule (*Gallinula galeata*), which, except in being slightly larger, is the counterpart of our Moor-Hens. There are also many Rails, but owing to their skulking habits they are seldom seen. These birds have, however, distinct tracks or roadways through the mud, and, although their footmarks frequently diverge as a single bird turns aside, yet the main roads are obviously used by many individuals.

(To be continued).

THE NESTING OF THE SATIN BOWER-BIRD.

Ptilonorhynchus violaceus.

By Mrs. JOHNSTONE.

It is with very mixed feelings that I am sending an account of the nesting of the Satin Bower-bird for publication in the Magazine; but I much hope that at any rate the account may be instructive, and that keepers of insectivorous birds may benefit from my, alas! very partial success.

I was fortunate enough, last Autumn, to become the possessor of three pairs of Satin Bower-birds, freshly imported and all out of colour. They were housed in a small house, made partially of wood, with a glass roof, and heated with hot water pipes, the temperature never going below 45 degrees.

There they passed the Winter in perfect health, with one exception: a hen Satin-bird, which had an apoplectic fit and died. They were terribly wild at first, and the old Suffolk keeper, who looked after them, was much distressed at their continued terror every time he fed them. "They fare so wild I dursent go near them, they bang about so," he complained: and to remedy this and give them confidence, several thick boughs of Scotch fir were placed in a corner of their house. They diligently made bowers all the Winter of the remains of a garden broom; and in the Spring, quite at the end of April, they were all turned into a garden aviary, where their talents could have fuller scope.

Their aviary is a large one; wild rhododendron bushes, varying in height from 3 ft. to 10 ft., grow in profusion, and quantities of short sticks, which had collected under the bushes, were soon brought into use, and a very pretty bower constructed. It measured 10 in. high and 15 in. long, and the walls were thick at the base and curved inward, forming a passage between; and the ground for about a yard all round was thickly carpeted with short sticks, and decorated with every treasure they could find; even the body of a little Indigo Finch was carried off and its death first realised by being found amongst a motley collection at the entrance of the bower.

All the Satin-birds (five) assembled here, and the curious rolling trilling song of the cocks was continually heard, and their love dances watched with much interest by the hens who, so far as I could see, never helped in the building of the bower or of the decoration thereof. They were to be distinguished from the cocks by their slighter build, and by their rather smaller and generally more feminine appearance.

The first nest was constructed of loose twigs in a thick rhododendron bush, and about eight feet from the ground; this was pulled to pieces and a more substantial foundation built, still of twigs but of some thickness; and almost immediately on the completion of the nest the hen began to sit. The nest looked like a small Crow's nest, and, as I discovered afterwards, was well lined with small rhododendron leaves. It was situated about 36 ft. from the bower, and only visited by the pair of birds to which it belonged, the cock usually keeping guard at the side of the bush, and attacking any other bird who approached too near. He never, as far as I could see, fed the hen when on the nest. She came off at rare intervals and fed herself, but he used to sing a great deal, particularly in the evening; the curious rolling rippling note could be heard a good distance away. He was, I believe, the oldest of the party, and was a larger bolder bird than the others, and showed signs of coming shortly into colour. The back of the neck was thickly pencilled with purple, and, in comparison to the other birds, he appeared to have almost a ruff, so thick were the feathers around the back of the neck.*

The hen sat very closely for three weeks, commencing to sit on June 7th, and carrying mealworms to the nest for the first time on June 28th; and from that time until July 29th, when the young birds left the nest, she was kept busy, as almost the entire work of bringing them up devolved upon her. She brooded the young very closely at first, darting down to seize the mealworms or cockroaches; but she never would feed them when anyone was watching, and would patiently wait with her beak full of mealworms until the aviary was free from intruders. The young

* This rather suggests the Spotted Bower-bird, if lilac instead of purple.—R. P.

birds, too, had their orders, and the nest might have been quite empty for anything that could be seen from the outside.

Later, they grew too large to be hidden, and tufts of soft grey down could be seen over the edge of the nest, and their voices could well be heard at some distance. The cock rarely fed them; he would come to the plate of mealworms, satisfy his own wants, and, if there were one or two to spare, carry them up to the nest—a great contrast to his hard working little wife, who drove all the birds from the plate (her greedy husband included) and filled her beak with mealworms, before eating any herself, to satisfy the two hungry babies. Cockroaches were first in favour, then mealworms and gentles; snails they would not touch, and only a very occasional earthworm was disposed of. Soft-food mixture or fruit was never used for feeding the babies, although it was the old birds' staple food.

On July 29th, two young birds (the usual brood when in a wild state) left the nest, and were first seen squatting on the rhododendron boughs near the nest, and looking very like young Thrushes with violet eyes. They were fed all day by their devoted mother, and occasionally moved from bough to bough, but they did not look lively or very happy.

And now comes the sad part of the story, for on the following morning, July 30th, one young bird was found dead, the mother bird in the greatest distress running wildly up and down with mealworms in her beak, hunting in every bush, and taking very little notice of the survivor, who sat stolidly on a bough, looking, alas! very poorly clothed for our changeable climate, and not at all lively.

That night the wind changed to N.E., and the following morning the second little body was discovered; the keeper fully realizing something was wrong by the short cries of the poor mother, who carried the much-loved dainty, some cockroaches, straight to the body, and then ran wildly up and down in the greatest distress.

Mr. Phillipps most kindly, after seeing the bodies, told me the reason of the deaths. Although the bodies were fairly well

nourished, they had received severe checks at some time while in the nest, due to insufficient food, and the cold winds and want of feathers had caused a chill to which they succumbed. He has kindly consented to add a description of the two young birds, as they were sent to him as soon after death as possible.

[This is a very valuable experience, for even in Australia very little is known of the private family life of this species. It will be observed that the father had not adopted the plumage of the fully adult male, and that the eyes of the young birds were of the same colour as in the adult. There was an indescribable difference in the shading of the general colour of the two young birds, tending to point to their being a pair. The number of eggs in a clutch is usually two, but not infrequently three.

The youngsters were splendid birds, and not badly nourished on the whole, although the plumage of the one first received bore two tell-tale famine streaks. Mrs. Johnstone had, most unfortunately, left three odd adults in the aviary, so the task of providing sufficient insect life was superhuman. If the odd birds could have been quietly run into an adjoining aviary, their presence would have encouraged the nesters without interfering with the food supply. The stomachs of the young ones were absolutely empty of food, though that of the second contained two pieces of grit. The amount of food that two great long-legged fast-growing youngsters of this kind required to fully nourish them and their fast-growing feathers must have been enormous.

There was another error in the treatment of the breeding pair. We are told that they were supplied with food every two hours, later every hour. From this I gather that a certain amount of insect life was placed in the aviary from time to time. This is altogether a wrong principle to work upon. And how about the early mornings? Can it be stated positively that the periodical feeding commenced at three o'clock in the morning and was never delayed or omitted! The famine streaks on the tail feathers of the one and the empty stomachs of them both tell a different tale. If young birds are to be reared successfully,

there must *always* be a supply of food within reach of their parents, especially in the early mornings.

The plan I adopt for the *pîce de resistance* is to have some large flat pans, nearly filled with bran, sunk in the earth, under a shed, nearly to a level with the ground. From time to time, and especially at night, I place handfuls of mealworms in the bran. When the parents want food for the young they always have mealworms to fall back upon.

The same course may be adopted with maggots—but I do not favour them if I can get anything else.

From time to time, according to my stock in hand, I place cockroaches in the aviary, in the “demon” trap itself (of course without the lid) or in some other suitable receptacle.

The course to be adopted is that mentioned by Mr. Farrar in connection with his Cat-birds (Vol. VIII. p. 286). The place should be alive with insects, notwithstanding warnings of plagues of ants as a consequence.

There should also be a supply of prepared yolk of egg, in *flakes*, in the aviary. Some parents *will* just now and then carry a flake of this to their young when hard pressed; ordinary boiled egg is of but little use.

Nevertheless I think they might have been reared if it had not been for the cold. Down the centre of the underparts, from chin to tail, when the side feathers were brushed aside, there was a track of about $1\frac{1}{2}$ inch in width, wider over the abdomen, absolutely bare and naked; and as soon as they left the nest the cold was too much for them. I cannot speak positively, except by conjecture, of the second bird, which, being found dead on Sunday morning, had been placed in ice to preserve it for despatch on the following day, but the first bird, which came to me immediately after death, shewed unmistakable signs of a severe abdominal chill.

The following is the description of the young birds:—Total length to tip of tail $7\frac{1}{2}$ inches; length of bill to gape 1 inch; Tarsus $1\frac{3}{4}$ inch; tail barely $1\frac{1}{2}$ inch. Head sparsely covered with mouse-brown down. Mantle brown tinged with

blackish, with light shaft streaks. Back dark brown, with buff shaft streaks, but dark at the tips, giving an indistinct mottled appearance. Upper tail-coverts the same, but with a tinge of olive, and with the mesial streaks slightly extending to the web on each side of the shafts. Tail brown, lightly tipped with sandy buff. Quills brown with yellow shafts (inconspicuous above), with inner webs washed with light sandy; on the fifth primary yellow encroached on the sandy, and the yellow became more extensive as the body was approached, occupying the larger part of the inner web, the under aspect of the greater part of the wing being yellow. Lesser wing-coverts brown, with sandy shafts; greater wing-coverts brown with darker centres, edged at tip with sandy, with sub-terminal line of dark brown or blackish; primary-coverts dark brown, outer web lighter, inner edged with yellow or yellow-white. Lower throat and upper breast soft and downy brown, shafts sandy, tipped with darker sub-terminal mark, giving a mottled appearance. Breast much lighter, buff white, with sub-terminal bar of darker, becoming lighter on abdomen. Under tail-coverts the same but darker. I have described these feathers as they appeared but, as already stated, when moved aside the centre track was found to be bare. The flanks were of the same general character, but more distinctly mottled owing to the "sub-terminal" bar being darker, and the sandy-buff "tip" much larger; these again seemed to be faintly edged with darker at the tip.

Bill, of the characteristic shape of the adult, light but becoming rather dark horn-brown towards tip. Thighs bare. Tarsus and feet pale washed-out slaty blue, claws more inclined to brown. Toes very long and large for so young a bird. All the flights were encased for about one inch in the quill, with 2-3 inches free. No under wing-coverts.

Inside of mouth bright orange yellow.—R. P.]

THE PIED SHRIKE.

By the Rev. C. D. FARRAR.

The restlessness which drove Elizabethan men Westward Ho ! sets me East itching to cross the borders of the avian world in this latter day, there to seek for new creatures, and to see new things, to experience new dangers, excitements, privations.

The land I loved was the land I saw
Just dropping below the sky ;
And when I was there, it was good no more,
So forward again trudged I.

When, therefore, one morning in the early Summer of the present year I received a letter from Mr. Hamlyn, offering me a pair of Pied Shrikes from Australia, I fell an easy prey to his too persuasive pen. My good nature is such that, as a quaint miner friend once said to me : “ If it was only two cocks ye see fightin’ on the road, yer heart ’d take part with one o’ them ! ”

Briefly, I am a martyr to a sense of duty—and curiosity. The old bait of knowledge is still effective. We cannot get rid of Eden, our curiosity is rampant as ever. We all take a bite out of the apple now and then ; some of us from the green side, others from the rosy : but we all like a bite more or less, sooner or later. It is a trick to be regretted, as knowledge really seems to bring a deal of trouble in its train ; from the sticking on of the fig-leaves, down to too close acquaintance with our neighbours lives.

The birds arrived in due course, and quite took my fancy with their quaint Quaker-like costume. The Pied Shrike may be briefly described as a “ study in black and white.” The cock is about eight inches long ; he has a bold black eye ; the head a beautiful glossy black ; chin and breast dusky white ; wings black with white shoulder patch, and a second small patch on the top of the flights ; back and sides of the rump black. The beak has a strong curved hook on the end, as I shall always remember from the hearty way in which he laid hold of my finger : I fairly screamed with agony. Have you ever run a fish hook into your hand ? if you have, you will appreciate my sufferings. The legs are black. The outer tail feathers are

white, except just at the base ; the next are black, except on the outer edge and tip, centre of the tail black.

The hen is rather smaller than the cock. She has only *one* white patch, and is reddish on the sides and under the wings.

My birds were wonderfully tame, and seemed to have no fear of man at all. Of course, being Shrikes, they require a large amount of animal food. Give them a *small* mouse, and they will kill and eat it with as little compunction as an English sportsman would kill a rabbit.

The Pied Shrike is one of the most beautiful and dapper birds I have ever kept ; always spotlessly clean, and, in his beautiful white waistcoat and glossy black coat, reminds me of the late Mr. Panmure Gordon, of Stock Exchange renown.

My Pied friends are very easy to feed. I give them any soft food with a plentiful supply of mealworms, blacklocks, and small baby mice, and they always look fat and well - liking. Needless to remark, they are not birds that you would turn into an aviary where there was aught that you valued.

I should not call the Pied Shrike a grateful bird, for after I have fed him to the full with luscious mealworms, I have seen him repeatedly hop away contemptuously ; saying as plainly as a newsboy in Boar Lane would say it, "Oh, now you can go and shoot yourself!"

THE TASMANIAN MAGPIE.

The Piping Crows (*Gymnorhina*) of Australasia, known to the Colonists as "Magpies," are an interesting and entertaining genus, combining the intelligent mischievousness of the *Corvidæ* with an exceptionally musical voice. The Lesser White-backed species of Tasmania (*G. hyperleuca*), is the subject of an interesting article by Mr. Frank Littler in the current number of the *Zoologist*. The species is entirely confined to Tasmania, not even being found on any of the islands of Bass Strait. The same tree, we are told, is resorted to year after year, for the nest, although the same nest is not occupied during successive

seasons ; and, should one of a pair be killed, the survivor brings another mate to the old nesting tree. Although the usual nesting materials are sticks and twigs, some Magpies in the Longford district built their nests of the wire that the first self-binding machines used for binding the sheaves of corn. It is much to be regretted that so many of the farmers in Tasmania regard the Magpie as one of their enemies, and in some districts have almost exterminated it. Seeing the birds searching among the sprouting grain for the grubs which form one of their chief items of diet, they imagine they are eating the grain itself, and so wage war upon one of their best friends. The Tasmanian Magpie makes a most delightful pet, Mr. Littler informs us, "though after a time it becomes very mischievous, and delights in pulling up freshly-set plants." One of these birds used to watch turnips or onions being thinned out, and then, when it thought no one was looking, went on with the thinning until not a plant remained.

CORRESPONDENCE.

HEATING, ETC., FOR AVIARY.

The following reply was sent to Mr. Mathias in reply to a query :

You cannot do better than carry out your plan of carrying on the hot water pipes into the proposed aviary.

I have tried all kinds of oil stoves and two forms of gas stoves, and have found both expensive, dangerous, and most unsatisfactory. I now use only hot-water pipes and radiators.

If you colour part of the glass, to deaden the sun-heat, I do not think the roofing-felt will be necessary ; but, it would be well to wire the inside all over with half-inch netting. An open-flight for the summer months would be a valuable addition.

A. G. BUTLER.

WHYDAH'S NESTING: GOLDFINCH AND GREEN SINGING-FINCH HYBRIDS.

SIR,—Perhaps the following note may be of interest. Some weeks ago, my hen Paradise Whydah was noticed to be looking somewhat unwell, she sat on the floor of the aviary with her head under her wing. The bird was caged and put into a hot greenhouse. Next morning she was better,

and it was found had laid an egg. Unfortunately the bird became worse later and died. I was ill at the time and did not see the egg (which got broken soon after it was laid); but my birdman told me it was pure white, rather larger than the egg of a Parson Finch, and much more slender and pointed. I did not even know the Whydahs were nesting, though I once saw the cock making a strange sort of love dance. Dr. Russ *once* raised one young bird, but he regrets he missed observing the appearance of the eggs. My cock Whydah caught cold and died a day or two after the hen.

In the same aviary I have a cock Green Singing-finch, and a hen English Goldfinch. These two birds have nested together twice this summer. The first time four or five eggs were laid. They were greyish, with dark red blotches. This nest was destroyed by some other bird, and the eggs broken. One egg that I had transferred to a Canary failed to hatch. The second attempt was more successful, three young birds being hatched. Of these, two are now larger than the Green Singing-finch. At present they are in size and shape very like the young hen Chaffinches, but they look like making handsome birds later on. The other nestling, which was the finest of the three, unfortunately got drowned just after it had left the nest.

The first nest was built within a few inches of the nest of a Violet Dove, and both birds sat at the same time in perfect harmony. Both the Goldfinch and Green Singing-finch were most careful parents, and in consequence the young birds are very strong and healthy.

ROSIE ALDERSON.

Since writing the above the birds have developed orange chins and foreheads, and also yellow in the wings. One of them can already sing very sweetly.

R. A.

THE INDIAN ROLLER AND THE SNAKE, OR, THE BITER BIT.

The Rev. Hubert D. Astley, from his villa in Italy, recently wrote to our Hon. Secretary as follows:

During my absence, my Indian Roller was nearly devoured by a snake.

One night at 9.30, it was heard making a great clamour, and banging wildly about the aviary. My man (an Italian) went out, and there was a large snake, about three feet long, twining up the rustic perches and hissing with head erect.

They say it is a venomous kind. The Roller has had his revenge; he has eaten several pieces of him to-day!

The snake is blackish with sharply defined and minute yellow speckles and lines all over. The under-parts plain whitish-yellow. The

head flat and arrow-shaped, with an overhanging brow, and a bright yellow eye.

My Roller is quite devoted to me, and a most quaint bird: pecking at my fingers and spreading his beautiful wings. It was the most sudden conversion (in a *bird!*) I ever witnessed. From *extreme timidity*, to extreme audacity and personal affection. All in a day.

I believe he would fly after me now if loose in the garden.

HUBERT D. ASTLEY.

GREEN BULBULS. (*Chloropsis*).

SIR,—I have just received a "Green-Bulbul," a very healthy lively bird, and so tame; it will eat out of my hand.

I am rather curious as to which "Green-Bulbul" it is; I rather fancy it must be *Chloropsis hodgsoni*, as it answers very well to the description of that bird at page 12 of Vol. VII. of the *Avicultural Magazine*.

It is at present minus a tail and some flights; but the blue patch *meets* under its bill; and then comes a black bib, *edged with an orange border which fades into the green of the breast*. The patch on its head is much the colour of that on a cock Saffron Finch, very bright; and it has pale blue shoulder patches.

Its two call-notes answer exactly to those of *hodgsoni*—one harsh and one a lovely clear loud whistle. I see they are referred to as rare and expensive; I paid only 15/6 for this one, which seems very cheap.

MARY F. RATHBORNE.

The following reply was sent to Mrs. Rathborne:

I think the writer of the account of *C. hodgsoni* to which you refer must have been confused in his mind over the Green-Bulbuls. For some reason, people will *persist* in confusing the rare (in this country) Malabar Green-Bulbul with the common Gold-fronted Green-Bulbul, *Chloropsis aurifrons*. Your bird is doubtless the latter. See Mr. Finn's "Notes" on *C. malabarica* and *C. aurifrons* at page 86 of Volume VIII.

Chloropsis hodgsoni is more commonly known as the Blue-winged Green-Bulbul; but the better name is "Orange-bellied Green-Bulbul," the under parts being orange. You will find a coloured plate of the male and female of this species in Volume III., facing page 169, with an account of the bird from the pen of our esteemed Member, Mr. Russell Humphrys.

The Golden-fronted Green-Bulbul makes a charming pet when kept by itself (it is usually very spiteful towards other birds), but please remember two things:—(1) It is sensitive to cold, and must be kept warm; (2) It is liable to fits, and must not be too highly fed.

REGINALD PHILLIPPS.

BURROWING OWL IN A FIT.

SIR,—I should like to tell you about one of my Owls. A few days ago the male was suddenly seized with violent convulsions ; its wings were stiffly stretched out, its beak dug into the ground, it could not stand ; this went on for some time, then its eyes closed, and it drew its wings together and seemed to fall or roll down the burrow. It lay there motionless from about three to seven o'clock. We could see it just breathing : this seemed gradually to get fainter, and we thought the bird was dead, but decided to leave it alone till the next morning. I heard the hen bird many times in the night, and began to wonder what I should do with her alone, as I feared she would pine. Next morning, to my astonishment, I saw both the Owls flying and hopping about apparently in the best of health. The male seemed just as usual through the day, ate his food well, and has gone on so ever since. Is it not extraordinary ; can you account for it at all ? Do you think they do not get enough mice ? We never see any *pellets* in the aviary. Perhaps Owls have a greater tenacity to life than other birds.

OCTAVIA GREGORY.

The following reply was sent to Mrs. Gregory :

Your Owl has had a very serious fit. You should have instantly seized him, held his head well up, and dashed cold water freely over his face and head.

For such a bird, strong quick-acting medicine must be administered with as little delay as possible. Castor oil is the best, but the greatest care must be taken not to soil the feathers. For this reason, Epsom salts are preferable. But there is great risk in administering medicine to a senseless bird, at some of it may go down "the wrong way" and be the means of causing death. With the ring part of a key you may often force open, and keep open, the mouth of these birds, and then, with a paint brush, the medicine may be placed inside the mouth. Sometimes this may be done with a quill. In any case, it is more easy in theory than in practice.

You feed too well or not correctly. Give as little solid meat as possible. Mice are the best ; also rats, rabbits cut up with the fur, heads, etc., of fowls from the poulterers—you must give fur or feather.

Remove all the water except a small dish. Put Epsom salts in this : if he will not take it then you must fall back on fluid magnesia.

These fits must *not* be neglected ; and please remember they are almost always brought on by improper feeding in some form or another.

I know very well that it is more easy for me to preach than for you to practise ; but it is best to point out what is wrong, so that you may know what to aim at.

REGINALD PHILLIPPS.

[This poor bird has since died. It is not often that a bird really recovers from the effects of so serious a fit as that described.—R. P.]

THE LETTERED ARACARI, ORIOLES, ETC.

(See p. 32).

SIR,—You will, I am sure, be glad to hear that the Lettered Aracari is much better now.

He got very bad after I last wrote, would hardly eat anything—just a little banana—and sat all fluffed up with eyes closed panting hard. He had very bad dysentery, and did not digest his food in the least; he drank a great deal. I gave him the squills and “hippo wine” in his drinking water, and also occasionally raw meat juice, as he would not eat meat or mealworms. He kept getting worse and worse for about eight days, when I thought he would not live many hours, and as a kill or cure gave him an egg-spoonful of Epsom salts in water; in about an hour he seemed better and ate a little bread and milk, and ever since has been steadily improving, and eating well.

I now give him a mixture of egg, breadcrumbs, and potato, pretty moist, for he will not eat it at all dry; also cut up banana, sweet grapes split, and squills in the drinking water. He got back the dysentery on the bread and milk diet, but I cured it at once with five drops of chlorodine in a wine glass of water; a few sips twice a day cured him at once. He is now quite lively and tight feathered, croaks and plumes himself all day long, but the snuffling keeps as bad as ever in his nostrils; how could I cure this?

Our Sykes' Oriole has now just begun to moult; it will be rather exciting watching him. We are putting up a radiator in his room to warm it better.

MARY F. RATHBORNE.

The following reply was sent to Mrs. Rathborne.

Possibly, if Mrs. Rathborne were to try a few drops of paregoric, that might dry up the catarrh; or there is a new preparation called Glyco-Thermoline, that I have found decidedly useful in some cases where I used it diluted as a nasal douche; but it may also be taken internally, say ten drops in a tablespoonful of water for drinking, a few sips at a time.

W. T. GREENE.

 WINTERING COCKATOOS, ETC.

SIR,—I have had two Great Sulphur-crested Cockatoos, two Rosy-breasted Cockatoos, and one Bauer Parrakeet, each summer for about ten years, flying loose in an outdoor aviary, 24ft. by 6ft., by 8ft. high, all open wire work, and facing south. At the north end there is an enclosure of brick 8ft. by 6ft., by 8ft. high. My birds each winter have been moved into a wire enclosure in my conservatory.

I shall feel much obliged if you will inform me whether these birds might remain in the outdoor aviary through the winter. My birds always seem in perfect health and are fed on barley, wheat, maize, dandelion, and lettuce. Their floor outside is earth, inside asphalt.

HENRY FOTHERGILL, *Major*.

SIR,—Certainly, Mr. Buxton, in his paper on the Parrots he turned loose at Northrepps, found Cockatoos *too* hardy. They would stay out in all weathers, and get their toes frost-bitten.

And the *Platycerci*, to which class Bauer's belongs, are, I think, more impatient of great heat, than of cold,

F. G. DUTTON.

CROWS, ROOKS, ETC.

SIR,—I see in the November number a query *re* Crows, Rooks, etc. I think from Mrs. Keene's letter that there can be little doubt that the bird is a Rook. A young Raven by the end of April is much larger than a Rook, and it hardly grows once it is full feathered. The Crow it is certainly not, as Crows are not glossy blue black, but much duller birds and of darker colour, especially about the head. Glossy blue-black exactly describes the colour of a young Rook in its first year. The distance from the line of demarcation, between the ordinary feathers and those covering the nostril, to the tip of the beak measured along the middle line, is nearly $2\frac{1}{2}$ inches in the Rook, and only two inches in the Crow, so that if the bird allows itself to be handled the matter should be easily settled.

Mr. Phillipps' remarks about the colour of the base of the feathers hold good, if specimens of both species are at hand to compare, as those on the Crow are lighter than on the Rook, but are not pure white.

J. LEWIS BONHOTE.

YELLOW-NAPED AMAZON.

SIR,—Would you kindly advise me as to my Yellow-naped Amazon Parrot. I bought it about a month ago, and it had then a bad cold and wheezed and sneezed a great deal. It is better, but one nostril is still a good deal stopped up and sometimes very wet. It is in fair condition and is just finishing moulting. I feed on a mixture of Parrot-food, canary, and millet as a staple, with a small piece (three or four inches) of bread with hot milk poured over and drained off, sprinkled thickly with sugar, every morning at breakfast. Occasionally nuts, fruit, and twice I have given it a piece of cooked mutton, the size of a large pea, which it seemed to enjoy. It is fairly tame, and sits outside its cage, and, after much persuasion, on my hand.

I want to get it into bright hard condition; the feathers seem dull with no life in them. It eats cuttlefish and eggshell freely. Is there any

way of guessing at the age of Parrots? This one's beak is rather *shelly*, and uneven at the tip.

(Mrs.) M. V. CHARRINGTON.

The following reply was sent :

I should not give the bread and milk at present. So long as the bird has a running at the nose I should put a few drops of Tabasco's sauce into its water. Make up its food of one quarter sunflower seed, one quarter hemp; the remaining half of equal parts of oats (white), millet, and canary seed. Shake all these well together. Peanuts, nuts, walnuts, and fruit may be given, and the bird should have green wood from sycamore, lime, beech, and horse chestnut, to bite to pieces. Keep it warm and out of draughts.

F. G. DUTTON.

THE MISUSE OF THE MEALWORM.

SIR,—In July, at p. 182, in connection with the swollen feet of my Pittas, I referred to the evil results that follow the feeding of certain species of birds too freely on mealworms. I have since received a letter from the Rev. Hubert D. Astley, which he authorizes me to publish for the information of our Members.—R. PHILLIPS.

"I grieve over the Pittas. . . . I come to the conclusion that you are *perfectly* right about the injurious results from over-feeding on mealworms.

Now I know—thanks to you:—

- i. *My Hoopoes*—constantly eating mealworms. All died off with festered feet, or over-heated skins.
- ii. *Lesser Ring Plovers*—The same.
- iii. *Pittas* ——— ! ! ! !

One certainly lives and learns.—H. D. A."

HARDY BIRDS.

SIR,—Could you forward a list of birds which would live in an outdoor unheated aviary. Would the *Weaving Weavers* and *Wrens* live.

C. CASTLE-SLOANE.

The following answer has been sent to Mr. Castle-Sloane :

My experience of foreigners has led me to the conclusion that all Doves most Australian Finches, the Indian *Amaduvade* (*Avadavat*), Java Sparrows, Saffron Finches, and all the typical Weavers are absolutely hardy. I should expect to find foreign Wrens more delicate than our British one.

A. G. BUTLER.

LIOTHRIX: REDPOLL: HYBRID.

SIR,—Would you kindly inform me what would be the best treatment for a Pekin Nightingale, which seems to be very costive, has slight swelling about the throat, with a continual opening and shutting of its beak, and a seedy appearance generally? It is a great favourite (the aviary is an outdoor one) and it is well acclimatised, having been through last winter successfully. It is a hen bird, its mate is very fit. It will take a meal-worm out of my hand, but seems to see with difficulty, and its eyes looked swollen. I shall be glad of any information that will tend to cure it.

I have noticed in some of the numbers of the *Avicultural Magazine* that I have received, that Redpolls do not often breed in captivity. I have bred them for two successive seasons, and a Grey Linnet assisted the two birds (the parent Redpolls) to rear their young.

I also bred two years ago a cross between a South African Green Singing-finch, and an English Canary (hen), the bird is now living and sings splendidly, throwing its head back, like its male parent, which it much resembles, except that it is considerably larger. Is this cross a common one? I have not met with it before. I did not try to mate them, they were at liberty in the aviary along with the others.

E. NORWOOD.

The following reply has been sent to Mr. Norwood:

It looks as if your Pekin Nightingale had caught a severe cold; but, in any case, it ought to be caged and kept warm indoors for the present.

Put five grains of Epsom salts, dissolved in a wineglassful of warm water, into a drinking-pail for one day's drink. After this has acted, substitute a mixture, consisting (daily for eight to ten days if necessary) of five grains of iodide of potassium, eight drops of glycerine, ten drops of tincture of lobelia, and twenty drops of Hoffman's anodyne to a wineglassful of water.

Should the bird get better, complete the cure by giving a mild tonic daily for a week or two—a few crystals of sulphate of iron will do very well dissolved in the drinking water.

Redpolls do not often breed in captivity; probably because they are seldom tried in outdoor aviaries.

The hybrid you mention is not a common one; but I believe most attempts to breed it have been made in cages indoors.

A. G. BUTLER.

BIRDS FOR OUTDOOR AVIARY.

SIR,—I should be very grateful if you could kindly tell me if I could keep Baltimore Orioles, Rosy-breasted Grosbeaks, White-eared Bulbuls (*Pycnonotus leucotis*), a Himalayan Rufous-cheeked Thrush

(*Trochalopteryx lineatum*), in an unheated garden aviary throughout the winter. I should also be very glad to know of any (excluding Parrakeets) bright-plumaged birds about the size of Cardinals, which would be hardly enough to stand an English winter without protection except that of an unheated aviary.

FREDERIC WALLOP.

The following reply has been sent to the Hon. F. Wallop :

Although I have never tried so-called Orioles, Bulbuls, or Laughing-Thrushes out-of-doors in the winter, I do not for a moment believe that they would be able to stand the cold and moisture which characterize that season in our country.

When one considers that those of our insectivorous birds which naturally migrate to N. Africa, are unable to stand the English winter, it seems more than probable that natives of Southern N. America, Nepal, and Persia, would stand but a poor chance of survival.

The Rose-breasted Grosbeak might stand a better chance, but it is too good a bird to risk the life of.

The Doves form the hardiest group of cage-birds, least liable to suffer from cold, on account of their dense plumage ; some of these are brilliant in colouring, but it is not easy to select many brilliantly coloured birds, the size of Cardinals and excluding Parrots, which are capable of standing extreme cold. Some of the Starlings, such as the Rose-coloured Pastor, and perhaps some of the Mynahs, would probably do very well.

A. G. BUTLER.

BRITISH BIRD NOTES.

SIR,—On the 17th of April last I found a pair of Tree Creepers were building in a box, which I had nailed on to the side of an old shed. The nest was built of pine twigs with moss, hair and grass, and a lining of feathers. Five eggs were laid. Both birds brought material to the nest, but one seemed to do all the building, as it stopped in the box for a minute, while the other only stayed for a few seconds.

On May 31st the birds looked ready to fly. There were four young Creepers and a bird with great white patches on the sides of its head (I took one of the Creepers eggs for a specimen). I could not make out what it was at the time and I could not get it out of the nest, it clung so tightly to the bottom. I took the box down and found it was a young Great Titmouse (*Parus major*). I tried to hand-rear two of the Creepers, and miserably failed. I fed them on ants and winter moth larvæ, yolk of egg and ants' cocoons, and gave them a drink after every meal. They died in two days. I shall not try any more birds after that. Do birds get anything to drink before they leave the nest ?

On June 3rd, at 8 p.m., the two other Creepers had flown, but not the

Titmouse. It was fastened down by a piece of stringy material round above and between the toes of one foot. I did my best, but cut the hind toe nearly off. The next day the bird was dead on the ground, about ten yards from the nest, with one wing broken, probably owing to my clumsiness.

Last year I found a Linnet's nest of the ordinary size, with three song Thrushes' eggs embedded in the material, two at the bottom and one at the side, just showing through. The Linnet was sitting on four of her own eggs at the time. I think some small boy must have put them there when the nest was partly made. If so, the wonder is that the Linnet did not desert.

I have found here a Marsh Tits' nest with nine eggs in it, and a Turtle Doves' with three eggs. Doves' nests are very flimsy things, and daylight can be seen through them, but sometimes it is quite impossible to tell whether there are any eggs in them or not without climbing up to see, as eggs and daylight look just the same from about 15 feet below.

H. L. SICH.

A FEATHER-PICKING SHAMA.

SIR,—My Shama has for the last fortnight or so been picking out the feathers on the top of the wings and shoulders, and picks at himself a great deal, especially in the evenings. I caught him this morning, and found that all the skin looks red, but could not see any insects. However, I dusted him with a little Keating's. He is in a wooden cage, and kept *very* clean. He washes well every day, and otherwise is perfectly healthy, although he is not singing much. He moulted well in August.

He is fed on egg, a food mixture, a little raw meat, and two or three mealworms per day.

M. E. STANYFORTH.

The following reply was sent to Mrs. Stanyforth :

When it is quite dark, some two hours after sunset, take a good light and, if necessary, a magnifying glass, and carefully examine the cage. If there are insects, you will see them running about.

Should there be insects, and the symptoms you describe are those of red mite, get some common soft soap, and, with the soft soap *as bought*, fill up all the chinks and crevices in the cage. Every *night*, rub the cage well over with a good sized piece of rag which has been soaked in paraffin.

If the bird is *healthy*, usually it is not necessary to touch them ; if you should do anything, a little extract of quassia in the *bathing* (not drinking) water will probably be quite sufficient.

A Shama kept in a cage in the house all through the year very often takes to plucking its feathers from irritation of the skin. This is caused by injudicious feeding in some form, usually by too high living. You cannot

feed a Shâma caged in the house too simply. Raw meat is distinctly bad ; if necessary, give him a little cooked meat (say a scrap of cold mutton) very carefully scraped and triturated ; and, for the present at any rate, stop the mealworms. Preserved yolk of egg, in flakes, is better than ordinary hard-boiled egg. Spiders, earwigs, woodlice, small cockroaches, &c., are good. From time to time, place a little fluid magnesia in the drinking water.

Occasionally give him a grape, cut up into small pieces.

REGINALD PHILLIPPS.

THE NEW MEDAL RULE.

SR,—The Executive have acted *ultra vires* in making a new Medal Rule.

Rule 10. of the Society says: "The COUNCIL, (but not a Committee of the Council) shall have power to alter and add to the Rules, from time to time, in any manner they may think fit."

I happened to say to several members, including *at least one member of the Council*, that the Hon. Walter Rothschild had kindly lent me a pair of Brown's Parrakeets, and that they were sitting.

In the next number of the Magazine the *new Rule*, *re* Medal, appeared, and I feel justified in saying it was the outcome of petty jealousy. Had I not mentioned the fact that the Brown's had been lent me, I venture to think we should not have had this new Rule. I am confident it was made for my special benefit, although I am sure I was conscious of no wrong, or I should never have spoken *so openly of Mr Rothschild's kindness* to me.

C. D. FARRAR.

[Mr, Farrar refers to the Rules which govern the Society itself; they have nothing to do with the Medal, which has always been entirely under the control of the Executive Committee.

We can positively state that the new Medal Rule was not suggested by any member of the Council to whom Mr. Farrar had mentioned the fact of a pair of Parrakeets being lent him by the Hon. W. Rothschild, neither was the fact made known to the Committee by any such member. When the Committee conceived the idea of awarding a Medal for the breeding of birds that had never before bred in the United Kingdom, it was never their intention that the Medal should be awarded to borrowed birds. It would be most unfair to those who, perhaps, spend a considerable sum in purchasing some rare species of bird and hope some day to induce them to breed and thus merit the Society's Medal, if another member can go and borrow an acclimatized pair of the same species, and, by inducing them to breed, gain the Medal. We leave it to our members to judge as to whether the new Rule is fair or not, and we have little doubt that their verdict will be in the affirmative. This correspondence must now close.—ED.]

THE SOCIETY'S MEDAL.

The Society's Medal has been awarded to Miss R. Alderson, for having bred the White-winged Zenaida Dove, *Melopelia leucoptera*; to the Rev. C. D. Farrar, for having bred the American Cat-bird, *Galeoscoptes carolinensis*; and to Mr. Phillipps,* for having bred the Australian Waxbill, *Egitha temporalis*, and the Blue Wren, *Malurus cyaneus*.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case.

If a reply by post (in addition to any Report that may appear in the Magazine) be required, a stamped and addressed envelope must likewise be sent.

HEN CANARY and GREEN AVADAVAT. (Mr. Rycroft). [Both died of concussion of the brain; possibly frightened during the night, and flying about in the dark came in contact with some hard substance].

ZEBRA WAXBILL, GREEN SINGING FINCH, and COMMON AVADAVAT. (Mr. Rycroft). [Enteritis (of a contagious nature I am afraid) was cause of death of all three].

WHITE JAVA SPARROW and two BUDGERIGARS. (Rev. T. Lewis). [Java Sparrow died from crop binding. Budgerigars died, one of apoplexy, and the other of inflammation of bowels. I do not suspect poisoning in these or your other birds, and if I did I could not tell you positively what poison was present without a proper analysis, which I cannot do for you].

Two ZEBRA DOVES. (Mr. Burgess). Found dead. [Exhaustion was the cause of death: not a grain of food to be found in either].

Cock and hen PINTAIL, NONPAREILS. (Mr. Burgess). Both birds were apparently well in the evening, and were found dead next morning. [Cause of death in each case was concussion of the brain].

Cock SIBERIAN GOLDFINCH. (Mr. Alston). In perfect health one day; found dead the next. [Apoplexy was cause of death].

* Neither accepted.—R. P.





YELLOW-EYED BABBLER.

Pycnorhynchus sinensis.

Minton Bros imp.

From living specimen in the possession of Mr. Phillips.

Avicultural Magazine,

BEING THE JOURNAL OF THE

AVICULTURAL SOCIETY.

New Series.—VOL. I.—No. 3.—*All rights reserved.*

JAN., 1903.

THE YELLOW- OR GOLDEN-EYED BABBLER.

Pyctorhis sinensis.

BY REGINALD PHILLIPPS.

It was in April last, at page 108 of Vol. VIII., that this interesting species was brought specially under the notice of our readers by Mr. E. W. Harper. Mr. Harper has given such a good account of the bird that little remains for me to say. Moreover, Mr. Harper knows the bird in its native country and has kept several specimens, whereas my personal knowledge of the species is limited to one solitary individual, a chance importation that came into my hands, with one of its wings cut, on the 7th of July, 1902.

For a while I kept it in a four-foot cage in a spare room, with my Silver-eared Mesias, and, later, loosed it into the bird-room.

For some time it led a very secluded life, partly because of its inability to fly, but chiefly from fear of its feathered companions. It climbed about the place, slipping between the bars of the several "houses," and was nearly as difficult to find as a mouse. Not that it went to the ground; far from it; but it kept a great deal in dark corners and quiet nooks, where it would be least likely to be observed, more often hanging on to the inside of the wire of a "house" than sitting restfully on a perch.

Little by little it grew bolder, and in due course moulted, when it became much bolder and freer in its movements, occasionally paying a visit to the garden, where it would be supremely happy creeping and clambering about the shrubs.

But it did more than this for, little by little, it became very tame, and now will hardly move out of a feeding saucer for me when I am attending to the food. It has found out that I am not a person to be feared, but an amiable kind of food-producing creature whose presence in the birdroom is rather to be encouraged than otherwise.

I have not the time to attempt to make a pet of it, but Mr. Harper has told us how familiar this species will become, everything he tells us being corroborated by my own observations on my solitary Golden Eye, excepting only the "tickling," which my specimen, so far, has managed to exist without.

I do not know the sex of my bird, the sexes being alike we are told (Cat. Birds, Vol. VII. p. 510); but probably it is a female. It is a pity that it should be alone, for with a companion it would be so much more at home, and one would have a better chance of observing its true nature. So far, it has not shewn the slightest inclination to keep company with any other bird; even when confined with the Mesias, they kept as separate as oil and water. It spends much of its time with a Golden-throated Barbet (*Cyanops franklini*), but probably that is only for the sake of convenience; it is I think the Barbet's house and food that attract it, not the Barbet himself.

It is an insectivorous and more or less frugivorous species, doubtless in the wild state climbing amongst the underwood, etc., and searching for insect life in every form. In captivity it seems to be fond of preserved yolk of egg, picking this out of the food dishes when there chances to be any.

To what extent it is actually frugivorous I do not know, but I frequently see it at the fruit saucers. When I bring the latter, freshly attended to, into the birdroom, there are five birds that are stirred up into active life at the sight. The two Golden-throated Barbets and the Black-naped Oriole (p. 33; and p. 100 of Vol. VIII.) at once take their stand by the place where each bird's dish is invariably placed. This shews reasoning power—for they never fly towards the dishes in my hands, but know their several destinations to an inch. Directly I enter the room, a light slim little figure perches on the edge of a saucer; the

corner by the door is, this time of the year, too dark for the bird to select what it wants, but, as I advance into the light, it picks out the choicest piece of grape, and flies off with it. This is the Brown-eared Bulbul, *Hemixus flavala*, referred to at p. 185 of Vol. VIII. But while this bit of by-play has been going on, my little friend with the Golden Eye has been coming towards me, tripping and flicking, turning now this way then that, along a long perch, about on a level with my face. It quietly comes on to the rim of a saucer and, like the Bulbul, chooses a piece of grape, which it carries off to some secluded corner where, holding it in one foot, it discusses it at its leisure. It does not swallow the portion of grape whole like the Bulbul, but carefully picks out the fleshy part from the skin. Jerdon says, "It feeds mostly on insects, often on ants and small coleoptera."

In the wild state, this species is common over the greater part of India, and ranges eastward into Burma, etc., a kindred species with black nostrils, *P. nasalis*, being found in Ceylon. Common as it is, however, Mr. Harper tells us that it is not a favourite cage-bird in India, and this is doubtless the reason why it so seldom finds its way to this country.

According to Jerdon, our present subject with the yellow nostrils is not a bird of the hills, but "frequents low jungles, or the skirts of forests, long grass, hedge-rows, and even comes occasionally into gardens. . . . it is generally seen in small parties of five or six, flying from bush to bush before you, and trying to conceal itself in some thick clump. . . . I have on several occasions heard one, perched conspicuously on a high bush or hedge-row (*), pour forth a remarkably sweet song."

Jerdon's description of the bird is short, and I will give it as it stands:—"Above clear red brown, rufous or cinnamon colour on the wings, and the tail obsoletely banded with dusky; lores, and all the lower plumage, white; lower surface of wings and tail dusky cinereous. Bill black, with the nostrils deep yellow; legs orpiment yellow; irides dark brown, with an outer circle of buff; orbits bright orange. Length $6\frac{1}{2}$ inches." The bill is short, deep, and arched. Mr. Grönvold informs me that, at the

* This reminds one of the Hedge Accentor.—R. P.

Museum, the bills of some of the specimens are deeper and more arched than that of my bird, but whether this difference is a mark of sex or age I do not know. Perhaps it is the distinctive mark of the male.

To the foregoing description of the plumage I must add that, when feeding below me on the ground on a bright day, I have noticed some delicate shading and clouding on the back, which are not usually observable. Perhaps this is the "slight shade of olivaceous above" of the young bird, as described in the Museum Catalogue. But it is only since the moult that it has been observed, and it has never occurred to me that my specimen is a bird of the year. If this be so, then Mr. Grönvold's painting is that of a bird in its nest-feathers. Further on in the Catalogue it is added that "*Birds of the year* will probably be found to be paler and more fulvescent in tone of plumage than adults." The bill of my bird is black, not dark brown as that of the young bird is stated to be.

The bird will perch or hang in any position, its powerful legs and toes being specially observable. Referring to Jerdon again, in the N.W. Provinces this is the bird said by the natives "to support the heavens by its legs, lest they fall."

It must not be supposed from the foregoing that the Golden-eyed Babbler is an insipid and spiritless creature, for such is not the case. Only yesterday (December 10th) for instance, I happened to notice the much larger Brown-eared Bulbul approach its favourite food-dish; but it was immediately put to flight, for our little friend, with head well down, made a ram-like charge at the intruder who, true to his character, beat a hasty and undignified retreat.

My little Golden-eyed Babbler makes a very engaging and interesting pet, easily kept if not exposed to cold; in my opinion the species is well worthy of an honoured place in our aviaries; and Mr. Harper, as may be seen from his Article, is of the same opinion.

December 11th:—This afternoon, I heard my Golden Eye sing for the first time. Noticing a strange song when feeding the birds, I traced it to a gable-roofed "house" where, in

a quiet well-sheltered spot, I found our little friend singing away most happily. Although a "little" song, it was sweet and attractive, and adds considerably to the value of the species as a pet. He was quite alone. He has several little call notes, not very often uttered, one commencing with a running twitter being perhaps the most commonly uttered.

From this, and his exhibition of boldness yesterday, I may now conclude that my bird is a male, probably a young one. The comparatively small bill may, therefore, be accepted as a sign of juvenility, not of sex.

FIELD NOTES ON SOME BAHAMA BIRDS.

By J. LEWIS BONHOTE, M.A.

PART IV.

One of the chief objects of my journey was to learn more about the nesting habits of the Flamingo, which is undoubtedly the most beautiful bird found in these islands, and, in this respect, the results were not very satisfactory. The Flamingo, as most of my readers are aware, is an aberrant, and very highly specialized, member of the Duck family. It is entirely an inhabitant of salt, shallow lagoons, and, in such places, a species of the genus may be found, though by no means commonly, throughout the tropical and sub-tropical regions of the world. Its food consists, almost entirely, of small animalculæ and molluscs which it stirs up with its feet from the mud at the bottom of the lagoons in which it feeds. Once these facts are understood, the reason of its peculiar structure becomes at once patent; the long legs enable it to keep its body above the water and at the same time to stir up the mud, while the long neck by counterbalancing the legs enables it to feed comfortably from the bottom.

The peculiar shape of the beak has always struck me as a most marvellous instance of adaptation, the large and hollow lower mandible and the flat upper mandible are precisely analogous to those of a duck except that the positions of the man-

dibles are reversed so that the upper mandible takes the place of the lower and *vice versa*.

But this difference is more apparent than real, for, when the bird is feeding, his mandibles, owing primarily to the downward bend of the neck but also to their own peculiar shape, become reversed so that the beak is, for practical purposes, precisely similar to that of a true duck. The edges of the mandibles are laminated though not quite as thoroughly as in the ducks; but the tongue which is very large and fleshy has filamentous processes on either side answering the same purpose, and which, as the bird strains the water through its bill, serves to retain any solid particles of food or mud, the latter being swallowed in large quantities. Owing to the barrenness of the localities in which it lives and to its brilliant colour it is a most conspicuous bird, and can be made out at a distance of a mile or more; it is however very wary and most difficult to approach, stretching up its neck to the uttermost on the slightest sign of danger.

Their power of hearing does not appear to be very greatly developed as, if near any cover, they would allow a close approach so long as the observer kept out of sight; let him, however, but show himself in ever so slight a manner, every neck at once shoots upwards and the birds will retreat walking away in a slow and dignified manner and eventually take to the wing.

The bump of curiosity is, however, considerably developed and they seldom flew away at once, almost invariably taking a good look at the intruder before doing so, and frequently settling again a few hundred yards off to study the habits of the strange human animal that was invading their solitudes. If undisturbed they remain very quiet all day, and are rarely seen on the wing except in the morning and evening. During the winter they spread about over the islands wherever suitable feeding grounds are to be found, but in the breeding season they gather together in immense flocks at certain places which are frequented year by year. The colonies of nests are not built every year on precisely the same spots, but within a very short distance of those of former years; I found about ten colonies in various stages of decay within a radius of about a mile.



COLONY OF FLAMINGO NESTS.

Photo. by J. L. Bonhote.

Bale, Sons and Danielsson, Ltd.

The position which they assume when incubating their eggs has long been a doubtful point among naturalists, and, although at the present day it is generally acknowledged that they sit on their nests like ordinary birds, several independent naturalists have asserted that they sit astride, and the point has never been definitely solved.

The nests, as may be seen from the photograph, are conical structures of mud, about 12 to 18 inches in height, by about 9 inches at their upper end and 5 or 6 inches more at their base; they are hollowed out at the top something in the shape of a soup plate and the large chalky white egg is placed in the depression. In their breeding habits they appear very irregular and in some seasons do not apparently breed at all. The mud for the nests is scooped up from the ground immediately surrounding them, though I am unable to say the exact manner in which they lift it. The few nests which I came across in process of building were very much trampled upon, as if they had been patted down to solidify them, but whether that was so, or merely that they were trodden on owing to the number of the birds, I cannot say.

It has often been remarked as very curious that the birds should build these mud nests *right out in the water*, but after having seen them in their native haunts (I am of course only speaking from my Bahama experience) it would be difficult to imagine a more comfortable way of solving the matter. The land there lies so low that during the rainy season it is mostly under water, so that, were they to nest on the ground, they would be very liable to be washed out, and, were they to nest on the obviously higher ridges, the young would have a terrible walk to their feeding grounds which would be practically impossible to such a long legged bird.

It is therefore essential that the nest should be near the water, and, as from causes of tide and rain, the water fluctuates in depth, the nest must be built sufficiently high off the ground to avoid the floods. As there are no trees or shrubs capable of supporting so large a bird, the case is most easily settled by building up a mud structure.

In the building of this mud nest difficulties arise; if

built right in the water it would never harden and consequently would gradually be worn away by the action of the water; on the other hand, if it were built on dry land, the mud is too hard to be scooped up, and to transport fifty or sixty pounds of mud from the water to the shore would be an undertaking beyond the power of any bird. Consequently I believe that, in the Bahamas at any rate, the birds wait for the first rains in May to soften the mud some feet or even yards away from the water. They have then no difficulty in getting plenty of soft mud and, being beyond the reach of all except the highest tides, the sun is able to bake the nests hard as they are being built. I have come to these conclusions, as all the colonies I visited with one exception were situated on mud so hard that it would have been impossible for the birds to gather it up as had obviously been done when the nests were built. At the colony where nesting operations had begun, the nests were placed as near as possible to the dry land in about an inch of water, but there were, at the most, only forty nests, whereas the number of birds I had seen there only a fortnight before must have been well over a thousand, so that the majority of the birds were either not breeding or had removed to a more suitable locality.

I fear I have transgressed at some length on these birds, but so much still remains to be found out about their habits that any information, however scanty, forms another stepping-stone by which we may eventually hope to thoroughly understand them, and the more one knows of these birds the more one is able to realize how perfectly their curious modifications are adapted for the life they lead. One more point before I leave them; these immense flocks are all supposed to be under a leadership, flying and feeding in regular order, and always leaving one of their number on the watch. This rule did not appear to us to be by any means an invariable one; but some vague idea of their beauty and formations may, I think, be gained from the following quotation from my note book, written a few hours after seeing them.

I had been watching at a distance an immense flock of 700 or 1,000 feeding, preening, and wading about, and, desiring a

closer inspection, had approached to within 20 yards of the nearest bird when I stumbled, and thus gave them the alarm.

“ As soon as they saw me they all bunched up together, their long necks stretched up as high as possible, and all I could see was a mass of living scarlet streaks. Although I remained absolutely quiet, the birds would not settle down again ; at first four or five, then the layer about four deep nearest me, then the next layer, and so on and so on, slowly rose expanding their jet black wings and displaying, as they did so, the pink of their backs and the gorgeous scarlet of their under wing-coverts. Thus they went slowly filing off in a long irregular column till not one was left, and, as they wended their way across the sky, one saw first the contrast of black and scarlet till it gave place to an intermittent line of red, gradually fading away in a pink haze on the eastern horizon. Such a blaze of moving colour, set in the deep blue of a tropical sky in the light of the afternoon sun, forms a spectacle of natural beauty which cannot be surpassed.”

The margins of the lagoons and rocky shores of the islands are populated by large cosmopolitan flocks of waders ; many of them, like the Grey Plover, Turnstone, Sanderling, etc., being common English species ; others, such as the Yellow-shanks, Red-breasted Snipe, and Willett, belong to the shores of America, the last-named, however, being a resident in many parts of the Bahamas. Finally, we have the Black-necked Stilt, a local and somewhat scarce wader belonging to the sub-tropical regions of the world, and which nests sparingly by a few of the lagoons. This last is a very noisy bird and, when disturbed, flies round and round, uttering loud and shrill cries not unlike the call of the Redshank.

We must now leave the lagoons and turn our attention to the isolated rocks and Cays which are scattered about throughout the group. In the early part of the winter they are absolutely devoid of bird-life, but towards February many of them are resorted to as breeding stations by large flocks of Frigate Birds and Boobies. I was not fortunate enough to meet with any Frigate Bird colonies, although individuals may constantly be seen high up in the air. At Abaco, where I was staying for a

short time, there is a large pool of fresh water, and on most mornings, flocks of these birds, in which the males greatly outnumbered the females, used to come and splash about like Swallows, never settling on the water, but dashing into it and rising again at once. This would be repeated a few times and then the flock would gradually make off again, slowly soaring round in ever increasing circles till they became lost in the distance. This was in March, during the early part of the breeding season, the nearest colony being about 40 miles away. My first visit to inhabited Cays took place early in May, and I had them under fairly close observation for about a fortnight. Three species of Terns were breeding on the Cay, viz. : The Noddy, Sooty, and the Bridled, and, on my first arrival, Royal, Sandwich, and Lesser were also seen there, but apparently not breeding. Although the island was at the utmost half a mile long by a quarter of a mile broad, each species had its particular distribution : the Sooty, which was perhaps the most abundant, nested chiefly in colonies where the prickly pear was not more than a foot in height, and, in such a place, the eggs would be crowded together hardly a couple of feet apart ; besides these, under the bushes all over the island, would be found scattered nests, more often in groups together but sometimes singly. The Sooty makes no nest whatever, merely laying its single egg on the bare rocks ; in only one case, out of the many thousands I must have seen, did I find more than one egg in a nest, but in this case the eggs were so dissimilar that I expect them to have been the produce of different birds.

In the more open places the birds all sit fairly close, allowing an approach to within three or four feet, but under the cover of the bushes they were much tamer, and allowed themselves to be taken off the nest without attempting to fly away. The Sooty Tern lays its eggs in the middle of May about a fortnight later than the Noddy Tern.

This latter was, next the Sooty, the most numerous inhabitant of the rock, and their nests were found scattered about everywhere, the majority being on the ground under the bushes. Like the Sooty, it only lays a single egg, and, when on the ground, makes no real nest, but collects a few small stones



NODDY AND SOOTY TERNS PERCHING.

Photo, by J. L. Bonhote.

Bale, Sons and Danielsson, Ltd.

with which it forms a rough cup. Many nests, however, were placed on the bushes and were quite large structures composed of a heap of twigs and dead vegetable matter, piled up with no attempt at interweaving or of making a solid structure, and on the top of this pile, as lining, were generally placed a few of the small stones, as used when nesting on the ground.

Both these species frequently perch on the trees and shrubs, and appear able to balance themselves with comparative ease. The photograph shows one of each species on a dead branch. The Sooty Tern is very noisy and may be heard by day as well as by night as they hover, like flies, over the island; towards dusk, however, appeared to be their chief feeding time when most of the birds, except those actually engaged in the duties of incubation, would fly out to sea. During the day, most of the Sooties would spend their time sitting in flocks at the margin of the vegetation, some three or four yards from the edge of the rock; the Noddies, on the other hand, would sit on the outermost edge of the rock or on ledges down to the sea level.

The third species of Tern breeding on the Cay was the Bridled Tern (*S. anostheata*), a bird very similar in appearance to the Sooty but smaller and greyer. These birds breed about the same time as the Sooties, but place their single egg underneath an overhanging ledge on the edge of the sea, or even two or three feet down a hole with an aperture barely large enough to admit one's hand. These birds were much scarcer than either of the other two species, and the majority were found breeding on a bare rock absolutely destitute of vegetation, and inhabited almost entirely by themselves. No mention need be made of the other species, as they were not breeding, and merely used the rocks as resting places.

Three other kinds of birds are found on these Cays; firstly, the Tyrant or King Bird (*T. dominicensis*) which arrives about May, and nests on the low bushes in some numbers; secondly, the White-crowned Pigeon which is found sparingly on any Cay on which there is a bush of sufficient size to bear the nest, but on many of the Cays they nest by thousands, flying to their feeding grounds, often over 20 or 30 miles of ocean, twice daily. There

is a curious and superficial resemblance between the Pigeons and the Noddies, so much so that at a distance in the glare of the sun one has to look twice to make sure to which species the bird belongs ; this resemblance is curiously enough augmented by a habit of the Noddies of taking what, for want of a better term, I would call " nuptial flights." These flights are undertaken by a pair of birds, and consist of a very rapid and sharp flight high up in the air with sudden alterations in its course which very greatly resembles that of the Pigeon. I am not of course suggesting any possible mimicry, which I think in this case very improbable, but merely noting a curious coincidence.

There remains but one more species to be noted on these Cays, namely the Dusky Shearwater (*P. auduboni*) known locally as the " Pimblico." Although on some of the Cays these birds swarm during the breeding season yet I never saw one of its own free will, and one might well spend the whole breeding season on the Cays without being aware of its presence. It nests in holes and recesses of the rocks generally far in and out of sight, but sometimes under the thick matted plants or under the centre of some prickly pear. Before the single egg is laid both birds occupy the hole, but, when incubation commences, one bird only is found. In the majority of cases the male bird was found incubating during the day, but there did not appear to be any invariable rule. During incubation they sit very close, allowing themselves to be lifted off the egg, but not without many protests of a forcible nature from their powerful and sharp-pointed bill ; in fact when caught they are extremely pugnacious and fight and bite at anything within reach, even if it be one of their own fellow comrades. When the young is hatched they do not brood it like a hen, but sit beside it for the first three or four days, after which, during the daytime at all events, the chick is left to itself.

As soon as the young is hatched they will not remain by it if disturbed, but scuttle away to the farthest end of the hole or even make their way out by another entrance and, when free, run along with shuffling gait to seek shade and shelter, but never, so far as my experience went, would they take to the wing unless thrown up over the sea. The note of the old bird is very harsh,

and consists of nearly the same sound uttered two or three times, with an expiration and inspiration alternately. In coloration the adults are very similar to the Manx Shearwater being of a dull black above with whitish underparts. The young are pale slate grey with lighter underparts and a large circular patch of grey on the vent; they are just as pugnacious as their parents and utter a soft peeping note not unlike that of a newly-hatched chicken.

Such are my notes on the principal species met with in these islands, although from paucity, or lack of experience, a few important species such as the Parrot and the Quail have had to be entirely omitted; I have, however, brought home some living specimens of both species, and I shall hope to have something to say about them on a future occasion.

When seeing foreign birds in their native wilds, one cannot help wondering that any of them can be successfully kept in the aviaries of a northern clime, where every surrounding is so totally at variance with those to which they have been accustomed for generations, and, if these articles enable aviculturists to better appreciate the needs and surroundings of their feathered captives, they will have fulfilled their purpose.

(The end.)

TRAGOPANS IN CAPTIVITY.

By W. H. ST. QUINTIN, F.Z.S., M.B.O.U.

Last year I recorded elsewhere how my Tragopans (Cabot's and Temminck's) had bred in my Pheasant enclosure, and how, in each case, the eggs were placed at some height from the ground in an old Wood Pigeon's nest. I had three clutches of eggs laid this year. The first was by a Cabot hen (not the same one which bred last year). She laid her two eggs in a pigeon's nest about 8ft. up in a spruce tree. She was watched lining the nest with dead twigs which she broke off the neighbouring branches, adding to the original structure considerably. These eggs were clear, as I had no adult male of that species at the time.

Later on a Temminck laid two eggs in another Pigeon's nest. These also failed to hatch in the incubator, being unfertile.

The third clutch of eggs, again two in number, were laid by another Temminck's Tragopan, on an artificial platform, which we had fixed up in a yew tree, 8ft. from the ground. Two young birds were hatched in the incubator, and one was reared; the other getting damaged by an accident and dying. The survivor is doing well, and is evidently a male.

In the last three seasons I have now had six clutches of eggs, laid by four different individual Tragopans (two Cabot's and two Temminck's). In each case the eggs were laid in a Pigeon's nest, or on a platform resembling one, from 8ft. to 14ft. from the ground. Each of these clutches contained only two eggs. It certainly looks as if the habit of the Tragopans (at least of the two species under notice) was to nest off the ground, and to lay small clutches.

The flight feathers of the young Tragopan chick are extraordinarily developed when it leaves the shell, and the bird is very active and independent. Bearing this in mind it causes no surprise to find that the egg is of unusual size, and it might be difficult for the bird to find a tenantless nest capable of containing a larger number of eggs. This practice of nesting in a tree, coupled with the extraordinary activity of both the juvenile and the adult in trees (I recorded, last year, how the young Cabot Tragopans of a few days' old flew from perch to perch in the wire run of the foster-mother, like young Thrushes or Robins), suggests the thought that in its native haunts the Tragopan has to use its wits to escape from ground enemies of some particularly destructive type. We find little recorded of the breeding habits of the various Tragopans. They appear from description to be excessively difficult to flush or even to see; and most of the examples, dead or alive, sent to Europe would seem to be netted or snared by natives.

BIRDS IN TOWNS.

By JOHN SERGEANT.

The ruralizing of towns by the gradual advance of bird life from the country is an interesting study, and one to which I have devoted some attention in the locality in which I live.

Southport, unlike many other towns, has been blessed by far-seeing land-owners, who have made it a rule that each house should occupy a certain area of land, and, as a consequence, most of the gardens are large and the houses stand back from the street, some of them embosomed amongst trees and shrubs. It would, therefore, perhaps be conveying a wrong impression to such of our members who do not know the town to designate it as such, when the general idea conveyed by the term is one of busy crowded thoroughfares, rows of shops, and terrace houses, abutting close upon the street, and a smoke laden atmosphere; whereas here we have wide streets, the principal one planted with trees, nearly all bordered by trees in the gardens on each side, with privet hedges, grass lawns and flower borders galore, and despite this a population of over 60,000. It is really a suburb, but a suburb without the contaminating proximity of a city.

This explanation and little digression are necessary to what I am about to say. About twenty-four years ago, when I first began to take an interest in birds, in my schoolboy rambles, I used to notice on the outskirts of Southport and Birkdale (its sister township) such birds as Thrushes, Blackbirds, Robins, Tits, Hedge Sparrows, etc., among the Starlings and Sparrows, which we always have with us, and occasionally an odd bird or two in the town itself; but year by year as the trees grow and the hedges get thicker I find that there are more of them, and they become bolder, penetrating farther and farther into the centre of the town. On several mornings this year, on my walk down to business, I saw or heard Blackbirds, Thrushes, Robins, Blue Tits, Oxeye Tits, Cole Tits, Wrens, Starlings, a Bullfinch, Chaffinches, Chiffchaffs, Hedge Sparrows, Green and Brown Linnets, Swallows, Wagtails, and, as a climax, a lovely Willow Wren and a Garden Warbler, both of the latter in the centre of the town amongst the noise of the traffic. The Thrushes and

Blackbirds seem oblivious of street traffic; they sing away over the hissing electric wire of the trams as if they were in the heart of the country. And the most surprising circumstance is that the majority of these birds are not merely travellers or country consins come in for the day, they are residents and breed here, and many of them winter with us.

From the frequency with which some of the birds I have mentioned visit my garden during the breeding season, I know that their nests cannot be far away; and a reverend neighbour of mine in his large vicarage garden has many a nest, the owners of which waken me frequently by their burst of song almost before daylight. A pair of Missel Thrushes spent the whole of the spring and summer in the neighbourhood, and I could make a very good guess in whose garden their nest was built.

Within ten minutes' walk of my house in the gable of a house that has been standing empty for some time, and within twenty yards of the street, a pair of white Owls have reared a brood for two seasons. Every night, just on the stroke of nine, during the summer, standing on the steps in front of the house, I could see one of the birds floating up the street and passing close over my head, when I could discern the bent neck and head, and large moving eyes, as he scanned every inch of ground he passed over; he would turn sharply round a cherry tree, fly between the house and the vicarage, and so disappear. I have watched this many times; he always came from the same direction and at the same time, and invariably turned between the two houses, and, when I have not been waiting for him, I have heard his call—I will not call it a screech, as I consider it a libel on the bird—as he passed. I have often wondered what he found for his family in the many gardens he passed over each night. I never once saw him “stoop,” although I have met him in other localities, but that was perhaps because he saw I was watching. One night he happened to be gliding up the street when a tram was coming down, and I was interested to see whether its rattle and lights would scare him, but he kept on his smooth glide and did not deviate from his usual pathway, as if he had the greatest contempt for modernity in the shape of a noisy tram.

Cuckoos too, during the summer, are heard and seen frequently, but more especially in the parts where there are the largest and most secluded gardens.

Jackdaws are very busy about the Church spires in the early spring, but whether they actually breed in the town I have not ascertained, though I am inclined to think they do.

One can draw many conclusions in explanation of this feathered invasion, but perhaps, in our ignorant groping after the truth, none of them would prove to be the right one. Are the birds becoming more numerous each year through the operation of the Wild Birds' Protection Act, and, finding the surrounding country contains as many birds as there is food for, they are thus impelled to seek fresh fields? It cannot be that here amongst human-kind they find fewer natural enemies. It is true we have no stoats, weasels, or marauding rats, and other vermin to rob their nests and destroy their young, but we cannot be said to be without cats, and where is the cat, however well fed at home, that will not spend the greater portion of its time prowling beneath hedges, and lurking amongst shrubberies on the chance of getting a fat young Thrush or Blackbird or Starling, not even despising a Sparrow.

Burroughs, the American ornithologist, and one of our most fascinating writers on birds and bird life, says that birds love the vicinity of human habitations. He relates how in one of his excursions he penetrated into the American wilderness, miles from any settlement, and how struck he was by the comparative scarcity of bird life, and how disappointed he felt, as he was expecting to find amongst the quiet woodland glades, almost untrodden by the foot of man, a kind of bird paradise, such an abundance of bird life in fact as he had never seen in the vicinity of the towns he had lived near.

If such a bird lover as Burroughs advances such an opinion, surely we are justified in adopting it in this instance as one explanation of the increase of birds in Southport and Birkdale, and, inasmuch as the explanation is flattering to our vanity to think that the birds return the affection some of us lavish upon them, it will be all the more agreeable.

But, nevertheless, I should be very much interested to learn from other members whether they have noticed anything similar, and what they think is the reason of it. I am aware that many comparatively rare birds make the Parks in the heart of London their home, but the gigantic size of some of these open spaces makes them almost as rural as the country itself, although surrounded by a teeming population. * †

A MODERN NOAH.

By the Rev. C. D. FARRAR.

King Solomon tried hard to bring all the beasts together by opening a Zoological Gardens at Jerusalem: but before he was able to complete his plan he unfortunately died; and as neither Rehoboam nor Jeroboam inherited his scientific tastes, the contents of the Gardens escaped from Jerusalem at the earliest opportunity, and went back to their respective homes.

Since that day several attempts have been made by public bodies and private enterprise to bring together meetings of the wild beasts of the earth and the fowls of the air. One of the most successful of these modern enterprises is the work of one of our members, the Rev. B. Hemsworth, of Monk Fryston Hall, Yorkshire. All who have seen his splendid collection of birds and beasts will allow that he is no unworthy successor of the Wise King of Jerusalem. To visit Monk Fryston is far better than to go to the London Zoo. Here you will find birds that the Gardens know nothing of ‡; and all are in the perfection of beauty, and enjoy almost perfect liberty.

* In many cases, perhaps in the majority of cases, birds come to the localities where they are allowed to nest undisturbed. Where the nests are protected, the loss of an occasional brancher by cats will not affect them to the same extent.—R. P.

† I think there can be no doubt that the increase of birds in towns and suburbs is chiefly due to the constant destruction of woods, commons, and waste lands by the owners, and the conversion of the lands into building-plots. In undisturbed parts of the country, birds are numerous as aforetime; but undoubtedly many birds now build in our gardens which formerly were confined to the country. I believe a pair of Lesser Whitethroats nested in a crimson may-tree in my garden this year, the parents were constantly to be seen, and later they were accompanied by four young ones.—A. G. BUTLER.

‡ We should be glad to know the species that are unknown at the Zoo.—Ed

After visiting the aviaries at Fryston you will feel like Stainer in the "Lost Chord," weary and ill at ease—wearily because you have walked hundreds of miles, and ill at ease because you have seen so many birds you covet but have not.

First of all, a word about Mr. Hemsworth himself. He is a well preserved man of middle height and robust form, who can still run a race with the swift and come off conqueror. He is of course wealthy, and enthusiastic on all his creatures, and never tired of showing his treasures to others. His motto concerning his marvellous collection ought to be, if it is not, "*Non sibi, sed gregi*": not for himself, but for the public. Unless you have been to Monk Fryston and seen for yourself, you will feel like the Queen of Sheba—the half has not been told you.

To see Fryston properly you want a long summer day. On entering the grounds you are beset by dangers. A Sikka stag disputes your way, with horns as sharp as needles, and if you have not a good thick stick, he will think nothing of laying you low, even with the ground: he did so with the vicar's daughter not so long ago. Having passed this first danger, you encounter a second—a fierce and bellowing Rhea will next dispute your path, and unless you beat him right sore, he will break your leg with a blow of his foot. If you succeed in escaping these perils, there are the Llamas to pass, who spit at you with supreme contempt, but otherwise let you alone. You now realise St. Paul's statement, "*in perils oft.*" Mr. Hemsworth assures you that all the brutes are absolutely harmless; but I always notice that he gets behind me, and advises a good thick stick for the passage!!

Arrived at the aviaries, you see such a wealth of birds that you hardly know where to begin. The first building is some thirty feet long and nine feet wide, divided into four compartments.

In the first are Yellow Budgerigars, a pair of Melodious Finches, a pair of Brazilian Sparrows, and a Garrulous Honey-eater from Australia—these, except the Budgerigars, are all exceedingly rare birds.

In the next division are a magnificent pair of Brown's

Parrakeets, generously lent by the Honble. Walter Rothschild : they have laid eight eggs this year. With them is a very rare bird, an Olive Oriole from Australia, something like our Missel Thrush, and a magnificent songster. *

In the third division are American Catbirds, Dyâls from India, a lovely pair of Blue-shouldered Tanagers, a lot of Chinese Zosterops, and several others I forget.

In division four are the gems of the collection : the loveliest pair of Manycolours I ever set eyes on. With them are Blue-throated Hanging Parrakeets, Red-headed Hanging Parrakeets—all most rare : Lineolated Parrakeets, Bibfinches, Ruficaudas, Australian Crimsonfinches, Yellow-headed Sparrows, Brazilian Sparrows, White-throated Finches, Pileated Finches, and a host of others ; also a pair of Musky Lorikeets that feed entirely on honey, and are the picture of health.

We pass on next to the Parrakeet aviaries, about eighteen in number ;

In No. I, I note a good pair of Laughing Jackasses ; various Doves, and some Rain Quails.

„ II. Many Canaries.

„ III. Red-vented Parrots that bred this year two youngsters, good young aviary-bred Pennant, and a splendid pair of Kings.

„ IV. a beautiful pair of Mealy Rosellas, and a lot of Cockatiels.

„ V. a grand pair of Crimsonwings.

„ VI. a lovely Red Rosella and a lot of Redrumps.

„ VII. a small flock of Blue Bonnets.

„ VIII. Indian Parrakeets, Blue Mountains, Tavis, etc.

„ IX. Rosy Cockatoos, Sulphurcrests, Solomon Islanders. This aviary is usually in a state of complete wreck.

„ X. A vast aviary, full of small birds—Budgerigars, Zebras, three Spotted Woodpeckers in lovely condition, Rain Quails, Francolins, Virginian Cardinals, Popes, Cowbirds, Pekin Robins, Blue Robins, and a host of others.

* *Oriolus viridis* ; I have had a fine male since 27th March, 1899.—R. P.

In No. XI. a splendid pair of the rare Rock Peplars, the best I ever saw.

- „ XII. a beautiful pair of breeding Pennants of gorgeous colour.
- „ XIII. a grand pair of Port Lincolns.
- „ XIV. a grand pair of New Zealand Parrakeets.
- „ XV. a beautiful pair of Blue Bonnets.
- „ XVI. a true pair of White Jackdaws.
- „ XVII. a lot of Doves, Cowbirds, etc.
- „ XVIII. a beautiful hen Barraband, whose mate is dead.

Walking back across the park about a mile, we come to the heated aviary. Here the birds are arranged in big cages. In the first is a splendid Talking Eclectus: his neighbours are Hanging Ceylonese Parrakeets, New Zealanders, and a lot of small fry. If you don't look out you will have your hat torn off by one of the many Macaws hanging on swings from the rafters. The rarest of these is a splendid pair of the Green Military Macaw.

Next we notice a splendid pair of Shiâmas, an Indian Tree Pie, and a gorgeous Long-tailed Glossy Starling. In a cage on the floor are a Tricolour Amazon, a Cuban Amazon and a Red-fronted Amazon. A Blue Barbet catches the eye: Bare-eyed Cockatoos, Nasicals, a grand pair of Salmoncrests, and two lovely Leadbeaters. In a large cage is a host of little birds, such as Parrot Finches, Whydahs, Noupareils, Indigoes, a Yellow-breasted Robin, and a host of others. The noise is, to put it mildly, trying to the nerves; and the heat reminds one of Central Africa, so I do not linger long.

In the private room of the manager, Mr. J. Levitt, is a splendid pair of talking Grey Parrots, true cock and hen. They can sing like almost any bird I ever heard.

I have enumerated a lot of birds: it would be difficult to name a bird that is not at Monk Fryston. All are in the pink of condition and reflect high credit on "Johnny." Johnny tells me plaintively sometimes that his life is but "labour and sorrow," and that he does not know what "rest" means. I do

not believe him, for he looks the picture of health, and is beloved of all the fair!

When I say that the lovely grounds of Monk Fryston are always open free to the public, I think I have said enough to make many determined where to spend their next Bank Holiday. Mr. Hemsworth is the essence of good nature, and he is never so happy as when, like Cook, he is "personally conducting" a party round his place. Sometimes he says to me quite wistfully, "Do you think anyone has a better collection of birds than mine?" And I feel I am speaking only the truth when I say "No."

Mr. Hemsworth, in addition to his "small collection" of birds, has a capital lot of poultry; *millions* of rabbits, at any rate a good lot; pigeons galore; a pet monkey, a beast to be avoided; Persian cats; and one of the best collections of water-fowl I ever saw.

To anyone who is anxious as to "where to spend a happy day," I would reply, "Go to Monk Fryston, and you will not be disappointed."

NOTES ON DOVES.

By ROSIE ALDERSON.

PART II.

(Continued from Vol. VIII., p. 223).

I will now give a short note on each kind of Dove or Pigeon I have kept. It must be remembered that the price of a bird varies *very* much, according to the year or season. The prices I am about to quote are what I paid for my own specimens, and may at any rate give *some* idea of the value.

THE TRIANGULAR-SPOTTED PIGEON.

Columba guinea.

Some years ago I had an offer from a dealer, of a "Fruit Pigeon" for ten shillings. It turned out to be a Triangular-spotted Pigeon. The bird was a hen, so I wrote to the Zoo to see if they could supply me with a cock, as I knew that this

pigeon had been bred there. Fortunately they had a bird to spare. These pigeons never nested whilst I had them, though I used to hear the male making a most singular cooing—more like the barking of a small dog than a sound made by a bird.

This pigeon I found very quiet and good-tempered toward the other doves in the aviary, but it is far too large to keep in anything but a large space. In colour the Triangular-spotted Pigeon is chiefly ashy-grey. The spots of white from which it takes its name are very distinctly marked on the wings. There is a patch of bare red skin round the eyes; the irides and feet are also red; the neck reddish, the tips of the feathers being bifid.

The sexes seem almost the same in colouring, though my cock was a thicker looking bird than the hen.

Habitat: Africa and several other parts of the globe. It is very destructive to the crops in its native land.

BARBARY TURTLE DOVE.

Turtur risorius.

This is such a very well known bird that no description of it is necessary, for everyone knows its creamy coat and black collar, but individual specimens vary, and some birds I have had were much prettier than others. It is worth from one and six to two and six a pair. I have a flight of these doves flying loose in the garden. They always roost, summer and winter, in the same trees, and twice a day come, as regularly as clock-work, up to the front of the house to be fed. They all begin to assemble as the tea hour draws near, and, being very punctual birds, if the proper time is past, and no tea has appeared, they all fly down together to the orchard, where they know that at that hour they will probably find my birdman, to remind him and escort him back to the feeding-place. The moment his steps tend in that direction, they all leave the Blenheim orange tree, where they have been waiting, and form a joyous advance guard, leading the way to the house. I put up a cote for these doves, but they one and all despised it. Many of them are killed by cats, or stolen, and several times they have flown against the plate-glass windows with great force, and

either killed or injured themselves. The Barbary is very useful as a foster-parent, and several times when a pair of rare doves have begun to sit badly, I have changed the eggs with those of a Barbary. The latter get so tame that they will not object to your doing this in the least. One little hen I had never even stirred from the nest, and let me feel among her feathers for her own eggs, and after I had put the other eggs in their place she would give them a little tuck in with her beak, as if to help me. Once I bred some beautiful hybrids with a hen Barbary and a cock British Turtle Dove, and one of these hybrids (after I had parted with it) bred in turn with another hybrid, a Barbary-Necklace.

Almost every spring I find young Barbary Doves deserted by their parents in the garden. It is no use trying to get another pair to take to one of these poor little things, for when it runs to them for food it only meets with rebuffs. So then I have no other course left but to "bring them up by hand," like poor little Pip in "Great Expectations." It is not a difficult task, though hardly a pleasant one, but one cannot see the little bird starve, which it would do if help were not given it.

THE HALF-COLLARED TURTLE.

Turtur semitorquatus.

This is a very fine, well-shaped dove, the chief fault being that it is too large for a small aviary. In colour it is a rich vinous pink, shading into drab on the back and wings. The forehead is whitish grey—this being more distinct in the bird that I take to be the male. The eyes are orange, and a broad black collar goes half-way round the back of the neck. I had a pair of these doves sent me, with four other kinds, from Africa last March. They began to nest in May and have been doing so practically ever since. Both doves are excellent parents, and are a strange mixture of boldness and timidity. They were constantly being driven off from one part of the aviary by a Necklace Dove (a bird *much* smaller in size) yet, on the other hand, they beat off with their wings one of my large Masked Parrakeets when he was climbing the wire to see if they had any eggs to dispose of. "Jack" has held them in respect (if not in affection)

ever since. Alas! that so lovely and charming a bird as the Masked Parrakeet should have this grave fault. Yet so it is, *both* my birds are as bad as any schoolboy in their search for fresh eggs.

I do not know the worth of the Half-collared—as I have never bought any through a dealer—but as I have never (that I remember) seen them advertised for sale, they cannot, I think, be *very* common, and I should value them at twelve shillings and sixpence the pair.

THE SENEGAL TURTLE DOVE.

Turtur senegalensis.

This is a very sweet little African Dove. In size it is midway between a Zebra Dove and a Barbary; it varies, though, very much in size. Its general colour is bright vinous red, and ash grey on the back. It has a collar (like the Necklace Dove) the feathers being tipped with black and having the appearance of small checks. In the Necklace, however, the collar is round the back of the neck, in the Senegal round the *front*. This dove is very dainty, and soon gets tame, and breeds freely in an aviary. The young ones are also ash grey and vinous, but not so bright as in the old birds, though they soon get the adult plumage. I have bred some hybrids with a hen Senegal and cock Necklace, and the young ones were handsome birds. The value of the Senegal is about fifteen shillings a pair, though I confess I paid twenty shillings for mine, but I bought them in ignorance of their real value. However, they have been a very good pair, so one must not complain. It is not a bad plan to study the weekly sale list in the *Feathered World*, even if you are not actually wanting any birds, and in this way one can learn the prices, and at what time of year they are lowest.

INDIAN GREEN-WINGED DOVE.

Chalcophaps indica.

This dove is worth about twelve shillings a pair. It is short and sturdily made, and is a very beautiful bird. The wings are rich dark emerald green; breast dark vinous; a white streak on the face, and the crown greyish. The beak is *bright* red, the colour of sealing wax. The hen is duller in colouring

and lacks the white in the face. I have found this dove perfectly harmless towards others of its tribe, indeed rather timid than otherwise. It seems somewhat susceptible to cold, and once I found one of my cocks moaning and almost unconscious on the aviary floor one bitter morning. The poor thing could not stand, and I hurried with it to my heated aviary, put it on the warm pipes, and gave it brandy and water. Gradually it ceased moaning and could hold up its head, and in a few hours was quite recovered. In the birds' medicine chests, which should be in every aviary, it is as well to always keep a small quantity of brandy. It may be wanted for a bird in a great emergency—when delay might mean loss of life to the sufferer.

BRONZE-NECKED DOVE.

This bird is very like the well-known Aurita Dove, but has much more metallic reflection on the neck than the latter bird. I bought my pair *as* Auritas, and they cost sixteen shillings, but I am nearly sure they are Bronze-necked.* The cock is a lovely chestnut brown and pinkish vinous on the breast, shading into white. The back of the neck is very metallic, and in the sunshine looks like polished brass with violet reflections. This dove is of short and plump build, and always looks smooth and in good condition. I found my cock bird terribly quarrelsome with other doves. He even carried it so far as to wish to retain the monopoly of the trap cage for himself and his wife, refusing to allow the other doves to enter—which, as he was *not* the bird I wanted to catch, was rather hard on me as well as on them. The note of this dove is a very mournful “haa, haa,” repeated five times. The hen is very like the cock, but the neck is not so bright.

AUSTRALIAN CRESTED PIGEON.

Ocyphaps lophotes.

This very handsome pigeon varies in price from fifteen shillings and sixpence to twenty-eight shillings, or more, a pair. The general colour is grey with a pinkish breast. On the wings are bars of metallic colour (edged with white) and sometimes appearing dark blue and green, in other lights purple and gold.

* From the description, we should say that this is *Zenaida aurita*.

Narrow black lines cross the wings, and on the top of the head is an upright crest of very fine feathers, which look as if they had been wetted and brushed all together into a point. The bird can lower this crest at will, and I have noticed it frequently does this when angry, or preparing to attack another bird. The young birds are very pretty little things, and have tiny crests even when in the nest. When the Crested Dove alights on a bough it raises the tail straight up and then drops it again. I have found this pigeon rather tiresome with other doves in the nesting season, but I have only had experience with two specimens. It is a very beautiful bird however, and well worth keeping. In size it is rather larger than a Barbary. My pair of crested pigeons had at one time a perfect mania for sitting—and sitting well—on other doves' eggs. Nor were they content with one nest, but *each* took a separate one. At last I took them away, and gave them a little aviary to themselves, and here they brought up several young ones. The Crested Pigeon has a sort of barking coo, like "whuff, whuff," and when angry they make a snapping noise (rather like an owl) with their beaks.

(To be continued.)

BIRD NOTES FROM THE ZOOLOGICAL GARDENS.

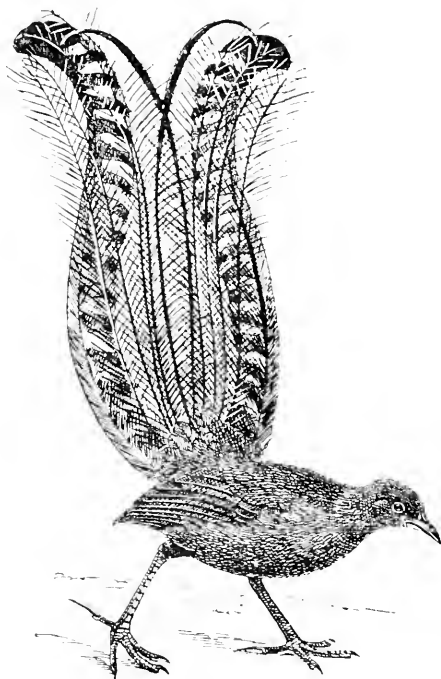
It will be remembered that a series of notes on the additions to the Zoological Society's collection appeared in Volume VI. of this journal, and it is proposed now to give a list of the rarer and more interesting species which have been received at the Gardens since August, 1900 (the date of the last contribution to our pages, on this subject).

1900.

Sep. 21	1 Black-throated Ouzel, <i>Turdus atrigularis</i> , Temm.	British India.
„	2 Tickell's Ouzels, <i>Turdus unicolor</i> (Tickell).	„ „
„	1 Spotted-wing, <i>Psaroglossa spiloptera</i> (Vigors).	„ „
„	1 Slaty-headed Scimitar Babbler, <i>Pomatorhinus schisticeps</i> , Hodgs.	„ „
„	1 Rufous-chinned Laughing-Thrush, <i>Ianthocincla rufigularis</i> , Gould.	„ „
„	2 Western Yellow-winged Laughing-Thrushes, <i>Trochalopteron nigrimentum</i> , Hodgs.	„ „

Oct. 19	2	Coach-whip Birds, <i>Psophodes crepitans</i> (Lath.)	Australia.
„ 31	1	Bouquet's Amazon, <i>Chrysotis bouqueti</i> (Bechst.)	Dominica.
Nov. 1	3	Wattled Honey-eaters, <i>Anthococcyx carunculata</i> (Lath.)	Australia.
„ 14	2	Vernal Hanging-Parrakeets, <i>Loriculus vernalis</i> (Sparmm.)	East Indies.
„ 27	2	Singing Bush-Larks, <i>Mirafra cantillans</i> , Blyth.	British India.
„	4	Ashy-crowned Finch-Lark, <i>Pyrhulanda grisea</i> (Scop).	„ „
„	2	Slaty-headed Parrakeets, <i>Palacornis schisticeps</i> , Hodgs.	„ „
„	1	Burmese Slaty-headed Parrakeet, <i>Palacornis finschi</i> , Hume.	Burmah.
„	1	Golden-eyed Fruit-Pigeon, <i>Carpophaga concinna</i> , Wall.	British India.

Among the more noticeable additions to the collection during 1900, the following are worth especial mention: A female Lyre-bird (*Menura superba*) from Australia, of which no



LYRE BIRD.

(*Menura superba*),

(From MIVART'S *Elements of Ornithology*).

specimen had been exhibited since 1876. Four Red-collared Lorikeets (*Trichoglossus rubritorques*) from N.-W. Australia, a Caffer Bustard (*Eupodotis caffra*) from Port Elizabeth, a Bouquet's Amazon (*Chrysotis bouqueti*) (a coloured plate and account of this bird were given in the Magazine for April, 1901, Vol. VII. p. 109), and seven specimens of Verreaux's Guinea-fowl (*Guttera edouardi*) from Rhodesia.

The following birds were bred at the Gardens during 1900 :

- 5 White Ibises (*Eudocimus albus*). First time in Gardens.
- 9 Glossy Ibises (*Plegadis falcinellus*).
- 2 Pied Mynahs (*Sturnopastor contra*).
- 2 Greater Black-backed Gulls (*Larus marinus*).
- 1 Herring-Gull (*Larus argentatus*).
- 3 Crested Pigeons (*Ocyphaps lophotes*).
- 1 Spotted Pigeon (*Columba maculosa*).
- 4 Vinaceous Turtle-Doves (*Turtur vinaceus*).
- 5 Rosy-billed Ducks (*Metopiana peposaca*).
- 2 Dwarf Turtle-Doves (*Turtur humilis*).

REVIEWS.

VARIATION IN BIRDS.

Mr. Frank Finn sends us a re-print, from *The Journal of the Asiatic Society of Bengal*, of a paper from his pen on this subject, in which he notes many curious and interesting cases of birds varying from the normal state. Variation in structure is rare, but a common Quail (*Coturnix communis*), obtained in the Calcutta Bazaar, possessed *five* toes on each foot like a Dorking fowl.

Birds with abnormally-coloured plumage are not particularly uncommon, and Mr. Finn tells us of many instances of departure from the ordinary in this direction. We are told that a yellow variety of the common Ring-necked Parrakeet (*Palzornis torquata*) is not rare; and a case is mentioned in which a pair of normally-coloured wild birds constantly produced a yellow brood.

In captivity birds are not liable to variation to the extent

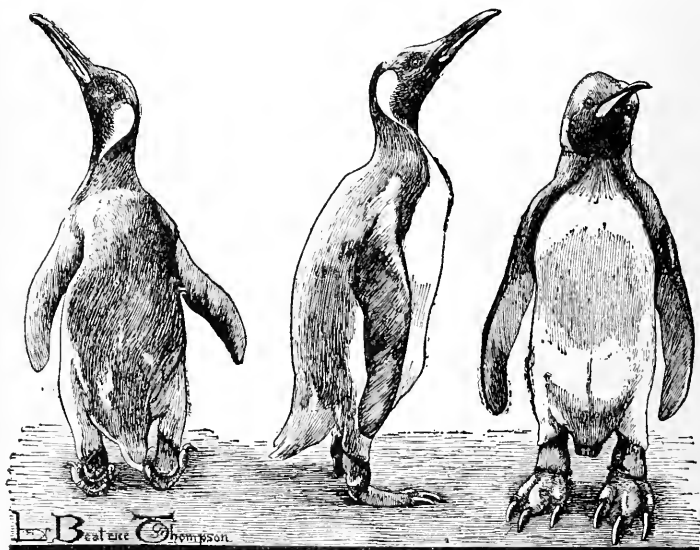
to which ornithologists generally give them credit, but several cases are noted, some of which, such as the loss of the red on the head and breast of the Linnet and Redpoll, are well-known to all keepers of British birds.

Domestication is also responsible for the white form of the Java-Sparrow, and white and pied forms (Bengalese) of the Sharp-tailed Finch (*Uroloncha striata*). We perfectly agree with Mr. Finn that there is no reason for supposing the latter birds to be hybrids.

Instances of variation in disposition, taste and habits are well-known to all students of living birds.

"WHO'S WHO AT THE ZOO." *

This fascinating little book is the outcome of many mornings spent by an art student at the Zoological Gardens during the last five years; and animal lovers (and we are sure the term



KING PENGUINS.

(*Aptenodytes pennanti*).

(From *Who's Who at the Zoo*).

* "Who's Who at the Zoo," by L. BEATRICE THOMPSON; with twenty plates and over one hundred drawings in the text by the Author. London, GAY and BIRD, 22, Bedford Street. 1902. Price 5/-.

applies to all members of the Avicultural Society) will find something of interest to them in almost every page. Miss Thompson, besides being a first-rate artist, is a very keen observer of the ins and outs of animal life, and she tells us many an amusing anecdote of the more familiar inmates of the Regents Park Gardens. The greater part of the volume is devoted to the mammals, but the birds are not forgotten; two chapters being given up to the larger and more popular species.

But the chief charm of the book lies in its illustrations which, with perhaps one or two exceptions, are excellent—we



STANLEY CRANE.

(*Anthropoides paradisen*).

(From *Who's Who at the Zoo*).

have rarely seen better work—and show the author to be a most talented delineator of animal life. There are some twenty black and white plates, and over a hundred text figures, all from the author's brush and pen, and we can most heartily recommend the book to our readers.

BIRD NOTES.

We are pleased to hear that the Corporation of Stockport have decided, at the suggestion of our member, Mr. Bouskill, to introduce an aviary into their Vernon Park. The North-east side will be devoted to members of the Crow family; in the centre will come Parrakeets and the larger finches, and the south end will be used for the smaller finches, mostly foreigners. We wish other towns would follow the good example set by Stockport.

A small consignment of the pretty little Varied, or Red-crowned Lorikeet (*Ptilosclera versicolor*), which inhabits Northern and Western Australia, has recently reached this country, and there is little doubt that these are the first examples of this interesting species to arrive on our shores. This small Lorikeet was separated from the genus *Trichoglossus* by Bonaparte, and certainly differs very materially, both in its habits and the arrangement of its colours, from that very well-defined genus.

Gould wrote :—" Could this species be transmitted to Europe, and a kind of food suitable to it be discovered, it would form one of the most delightful cage-pets that has ever been introduced." Fortunately we have, in sweetened milk-sop, a substitute for its natural food which, with the addition of sweet grapes and other fruit, seems to suit it admirably. At present seed is not touched.

With reference to the subject of food for Lorikeets in captivity, Mrs. Hamilton, who recently lost a specimen of Swainson's Lorikeet (*Trichoglossus novæ-hollandiæ*) which had lived in her possession, in perfect health, for *ten* years, writes :—" I can hardly say he had any particular diet, as I gave him freely of anything he would eat, in the way of apples, grapes, sometimes a bit of banana, honey, sponge-cake, and what he loved better than anything,—occasionally a teaspoonful of *milk*. A bit of sugar was also appreciated. As to seed, he had canary and a little hemp always in his cage, but he lived so much out of it, and was so inquisitive, going to all the other cages, and slipping inside to see what his friends had, that I think he partook of a variety of seed. Latterly I fancy he took too much sunflower seed. I supplied green food daily when not wet;—flowering grasses, groundsel, mignonette, and dandelion flowers. He always returned to his cage to order, and made several very pretty little cries, chuckling like a hen, and whistling a clear, long note. He loved his bath and rolled over and over until every feather was soaked. He was a very excitable bird, and loved to be noticed, and was jealous of any one speaking to any of his companions. I attribute his long life to the freedom he enjoyed. His last effort was to fly over to me, in doing which he dropped lifeless."

CORRESPONDENCE.

NAMING BRAZILIAN BIRDS.

SIR,—Would you kindly let me know the trivial names of the following Brazilian birds:—

No. 1. Much same size and shape as a Gouldian, head, back, wings, and tail jet black; chin, streak from bill to back of head, monstachial streaks and under part pale greenish white, some coloured spots on wings, black collar dividing white on chin and breast; bill, dark leaden nearly black, feet and legs grey. Local name "Papacapim," has a peculiar habit of spreading its tail fan like, and a very fine singer.

No. 2. Whole of upper parts, wings, tail, and head very dark green, under parts greenish white. bill and feet leaden. "Begordi."

No. 3. Very delicate medium grey with a white chin, tail and primaries dark grey; bill, dark horn; feet and legs light brown. "Patetiva."

No. 4. All upper parts, wings, and tail glossy black, breast and underparts rich dark chestnut; bill horn, nearly black and much higher than wide, in fact conical from side view; feet and legs brown. "Courial." I often think that Brazilian birds are very little known to aviculturists, and although the majority of the seed-eaters are rather quietly coloured, many are very fine singers and very graceful and pretty.

H. C. HESELTON.

The following reply was sent:

I make out Papacapim to be the Lined Finch (*Spermophila lineola*). Patetiva—the Plumbeous Finch (*Spermophila plumbea*); Courial I cannot discover. If it had a chestnut or cinnamon rump, it might possibly do for *S. nigroviridis*, but your illustration does not show this character. Begordi is the Guttural Finch (*S. gularis*).

A. G. BUTLER.

"THE HOODED SISKIN."

SIR,—In the December number of the *Avicultural Magazine*, just received, I recognise with pleasure an old friend of mine, on the front page.

The Hooded Siskin is indeed a very beautiful and most charming little bird, but I met it only once in London, and then kept it for some considerable time. I found that it was so very rare that I did not include it in the list of foreign cage birds.

When I obtained the only specimen I ever saw, I found much difficulty to name the bird twenty-five years ago.

In the list of Vertebrated Animals in the Gardens of the Zoological Society of London, published in 1877, I find this bird named *Chrysomitris*

tristis (Linn.) American Siskin. Hab., North America; and in my copy a pencil note "Calcutta."

Chrysomitris is a terrible family name, and *tristis* certainly a misnomer. I always thought the bird's native country was Mexico.

It astonishes me to hear of the little bird being found at a bird-dealer's shop in Teneriffe; but strange things do happen. I met with one of the few specimens of Gould's *Ægitha picta* which were ever seen in Europe, at an East End bird-dealer's shop in a cage full of little African finches just arrived from Marseilles, and a friend of mine brought home from Brazil an undoubted big white Lemon-crested Australian Cockatoo.

If the red Hooded Siskin can be obtained in the Canary Islands, it is to be hoped that the publication of the very pretty coloured plate may lead dealers to bring the species over, for the bird would be a very welcome addition to the small exotic finches with which aviaries are now stocked.

AUG. F. WIENER.

[The American Siskin (*Chrysomitris tristis*) is a very different species from the Hooded Siskin (*C. cucullata*). The former, which was the subject of a coloured plate in Volume V. (p. 125) of this Magazine, inhabits North America, wintering as far south as Mexico.—ED.]

THE NEW MEDAL RULE.

[In the December number of this Magazine we said that this correspondence must close, but as almost the whole of the Council wish the following letter to appear, and as we understand that it was intended for the last number, but could not be sent in in time, we publish it herewith, but we wish it to be understood that we do not intend to re-open the controversy.—ED.]

To the Editor of the "Avicultural Magazine."

November, 1902.

SIR,—We the undersigned members of the Council wish to protest against the tenor of the letter signed by the Rev. C. D. Farrar and published in the November number of the Magazine. We desire to express our entire disapproval at the insinuations therein contained, and to record our keen appreciation of the valuable services rendered by Mr. Seth-Smith and Mr. Phillips, not only on behalf of the Magazine, but also in the cause of scientific aviculture.

We request you to publish this letter in the next number of the *Avicultural Magazine*.

(Signed) RUSSELL HUMPHRYS.
ARTHUR G. BUTLER.
JAMES B. HOUSDEN.
ARTHUR GILL.
WESLEY T. PAGE.

E. G. B. MEADE-WALDO.
ROSIE ALDERSON.
O. F. CRESSWELL.
HUBERT D. ASTLEY.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case.

No replies can be sent by post.

BROWN'S PARRAKEET. (Mrs. Johnstone). Found in an apparently dying condition and soon succumbed. [Apoplexy was the cause of death].

ST. HELENA SEED-EATER. (Mr. Boothroyd). [Death resulted from acute inflammation of the liver].

RING-NECKED PARRAKEET. (Mr. N. O'Reilly). Looked ill for some days. [Inflammation of liver caused death].

WHITE JAVA SPARROW. (Mr. Turner). [Death was due to internal hæmorrhage, which resulted from a rupture of a blood-vessel in the abdomen].

COCKATIEL. (Mr. A. J. Salter). Found dead. [Inflammation of the bowels].

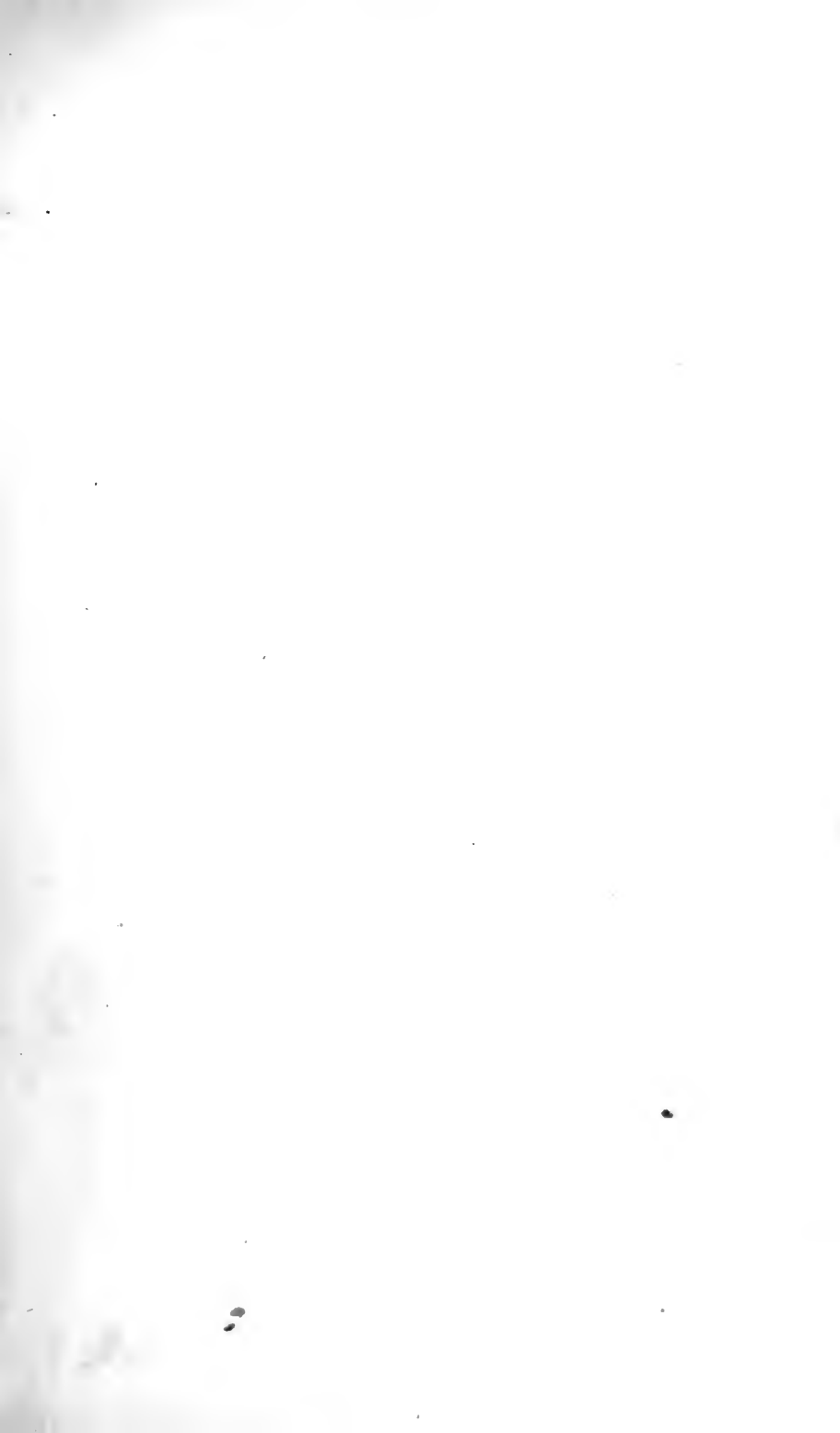
GREY PARROT. (Miss Alderson). Has been suffering apparently from cold some days; gradually got worse and died. [Inflammation of the lungs].

BLUE ROBIN. (Mr. Towner). Found dead. [Concussion of the brain].

GREAT BUSTARD. (Mr. W. H. St. Quintin). Died after six days' illness; symptoms: dullness, loss of appetite, lethargy, and death. [You are quite correct: pneumonia was the cause of death].

RED-HEADED GOULDIAN. (Mrs. Rotch). Began to droop about a fortnight; brought him into a warm room, he gradually got weaker, and dropped from his perch. [Jaundice caused by long-standing liver disease. I do not see that you could have done anything to save it].

SENEGAL DOVE. (Mrs. M. Charrington). Found dead. [Apoplexy was the cause of death].





H. Goodchild del. et lith.

BLUE-BREADED WAXBILL.

Estrilda angolensis.

Western B. B. imp.

From living specimens in the possession of Mr Phillips

Avicultural Magazine,

BEING THE JOURNAL OF THE

AVICULTURAL SOCIETY.

New Series.—VOL. I.—NO. 4.—*All rights reserved.*

FEB., 1903.

EDITORIAL.

With the appearance of the one hundredth monthly number of the *Avicultural Magazine*, the members may, we think, look back with satisfaction on the progress the Society has made, and congratulate themselves on the possession of a journal which has done more than any other publication to encourage scientific aviculture. As we look at the eight bound volumes on the bookshelf, the eighth fully twice the thickness of the first, as we notice the steady increase in the number of members,—173 in November, 1895, and 331 at the present time, or the number of illustrations which now appear as compared with a few years ago, it is at once apparent that steady and sure progress has been made. But we must not consider that we are yet at the top of the ladder, or that, like Alexander the Great, we have no more worlds to conquer; surely we are still in our infancy; much, very much remains to be done by aviculturists, in the way of studying the life habits of birds.

The Natural History Museum at South Kensington contains thousands of skins of birds, from every part of the globe, but how much is known of the living habits, of the plumage of the nestlings, of the changes from summer to winter plumage, of the many little items which make the difference between the living and the dead? Travellers may teach us much; but it is left to the aviculturist to teach his fellow bird-lover—his fellow ornithologist—many things that could not otherwise be known. We use the term “ornithologist” advisedly, for we do not consider that there should be a breach between the ornithologist

and the aviculturist ; in other words the aviculturist should be an ornithologist ; he should find out, as far as possible, all that is known about birds, and he should study his living birds with the object of finding out what is not known, and what cannot be found out from dried skins or books.

In looking back over the first eight years of the Society's life, there are two or three names that stand out prominently, and to whom every member owes a debt of gratitude. We refer especially to those gentlemen who were chiefly concerned in the foundation of the Society, and who held the honorary posts of Secretary and Editor during its first years. And we need not remind our members of the amount they owe to the present hard-working Honorary Secretary, who has been a pillar of strength to the Society since its birth in 1894.

THE BLUE-BREASTED WAXBILL.

Estrilda angolensis.

By REGINALD PHILLIPPS.

When our Members open their Magazine this month, the CENTENARY NUMBER of the Society's publication, and look at the portrait of the graceful little birds that adorn its pages, not a few of them will exclaim, "A common Cordon Bleu!" But if our friends will kindly look again, those of them who are sharp will quickly discover that the birds figured by our artist are not Cordons, although remarkably like, and very closely related to, our familiar little friend. In the Zoological Society's "List," the latter does not appear under the name of Cordon Bleu but as the Crimson-eared Waxbill (*E. phœnicotis*) ; and here at once we have a difference between the two species, for the male of the Blue-breasted Waxbill lacks the well-known crimson ear-patch which is so conspicuous on the male Cordon.

According to books, there is not any other difference in plumage between the two species, the females being alike. I think it was Mr. D. Seth-Smith who told me last year that he had been comparing a skin of the female of each species, and

was unable to perceive any difference between them. For myself I can only say that, as the birds now portrayed are the only two I have ever kept, I hesitate to make any positive statement as regards the live bird. Moreover, in order not to mix the two species, I have kept them as much apart as possible, and mostly under different conditions, especially since the cold weather set in, so a comparison is not of much value with foreign birds of delicate natures and brightly-coloured plumes. Any way now, in January, both of my Blue Breasts are considerably more blue than the Cordons, especially the female. The Cordons, however, are loose in the birdroom by night and the garden by day, and are subjected to influences adverse to delicately tinted feathers, whereas the Blue Breasts are caged for the winter in my dining-room. All the same, during the summer I more than once remarked that the Blue-breasted Waxbills had more blue about them than the Cordons.

Whilst writing on the subject of the plumage of these two species, I cannot refrain from remarking that, in the British Museum Catalogue of Birds, Vol. XIII. pp. 400-2, the females of both species are described (excepting as regards the red ear-patch) as similar to the male. I have kept and seen a great number of Cordons, and, in my opinion, the males have always been more blue in colour than the females. Even Dr. Stark writes in the same disappointing strain, for, of the adult female of *Estrilda angolensis*, he says, "Resembles the male in plumage, but is a little smaller." (*Fauna of South Africa*, Vol. I. p. 103). My two birds, at any rate, plainly differ, as a glance at their portrait will shew. During four days in June did Mr. Goodchild work at the painting, with the birds before him in a small cage in a good light, finishing off the painting on October 23, one of the special points he laboured to portray being the differences between the sexes. And not only, as may be clearly seen, is the blue of the male of a deeper hue but it is more extended.

The following are my own notes, made at the time the two birds were in the small cage, which I will transcribe in their original curtness and roughness;—"Blue of male more intense and more extended, especially over eyes and loreal region, and

extending much lower towards vent; more pure on flanks, female having good deal brown; brown on female's neck extends farther across throat, threatening to connect; eye of male perhaps more red, and larger; the bills lilac with black tips and edges; under side of tail looks light drab rather than blue; male distinctly larger; on primary coverts of female, when wings closed, several dark brown washes, not appearing on male: brown abdomen of male (only a) narrow point running (forward) into blue, female's being much broader."

The birds have since moulted; and on 4th January, 1903, I carefully examined the under parts as they were sitting side by side on a perch close to and about on a level with my face, the light shining well on their breasts. The brown (light drab) on the abdomen and breast of the female was fully three times as broad as the brown on the male, and extends distinctly higher up towards the throat. In this respect, at least, the statements made that the sexes are alike are wanting in accuracy.

Like the Museum Catalogue, Stark declares the only difference between the two *species* to be the crimson ear-coverts of the male Cordon. But the following differences would seem to be not entirely apocryphal:—Body of bill of Blue Breast lilac instead of crimson; iris reddish-hazel instead of yellowish; legs and feet pale or pale brown instead of flesh-coloured (Butler) or reddish (Catalogue). Perhaps the Cordon may be the smaller bird.

The song of the Blue-breasted Waxbill, judging by my own male (the female is said to sing, but I have not heard mine do so), although practically the same as that of the Cordon, is sweeter and better sustained, and the love dance of my male is in a marked degree more boisterous; he jumps into the air higher, and thumps down on his perch with a noise I have never noticed in any male of the kindred species.

The Cordon is very widely distributed across Africa, but the range of our present subject seems to be limited more or less to the south-eastern parts of that continent.

I think I may with advantage quote here a few words from Dr. Stark's work:—"These beautiful little Waxbills are usually met with in small parties, but occasionally in autumn, after the young have flown, in very large flocks. They prefer localities which are partly open, partly overgrown with scrub or low trees, and are specially fond of scattered mimosa bushes, in which they can take refuge if disturbed when feeding on the ground on their favourite grass-seeds. When frightened they rise with a shrill twittering to take shelter in the nearest bushes. In spring both male and female sing not unpleasantly. Although the adults appear to subsist entirely on grass-seeds, the young, before they leave the nest, are fed on small grubs and insects. The nest is invariably built in a bush, often in a low mimosa, and is generally placed in a fork at a height of from three to eight or nine feet. At first sight it looks like a ball of dried grass carelessly thrown into a bush; on investigation a small side entrance, nearly concealed by the projecting ends of grass-stalks, may be found, leading to the interior which is smoothly and warmly lined with finer dried grass and feathers. Three or four eggs are laid. These are pure white, and rather round in shape. . . . Mr. Andersson found this Waxbill nesting in Ondongo. A nest taken by him on the 2nd February, 1867, was constructed of grass, and had no internal lining. It was built in a palm bush, six feet from the ground. The eggs were five in number."

The story of my pair of Blue-breasted Waxbills is uneventful, and soon told. They reached the Port of London, direct from an aviary in Natal, on 26th May, 1902, and were in my hands before midnight. The male was good, the female less so. On June 18 they were loosed into my garden aviary, and almost immediately commenced to build in a thorn bush, between five feet and six feet from the ground. They were bullied by the Double-banded Finches, and, being neither robust nor in good condition, eventually retired, and passed the remainder of the summer quietly, to the great advantage of their general health. On October 21 they were transferred to a six-foot cage, in my dining-room. After settling down, I noticed that they were desirous of nesting, and were endeavouring to build on the *top* of a travelling box; but their mode of working

shewed that they were dissatisfied. I placed a little conical rush nest by the side of the box, and in this they built a tiny nest. The first egg was laid on the 18th November. They had behaved so steadily, and in such a business-like way, that, if they had been left undisturbed, doubtless they would have done their best to reproduce their kind. But here the disadvantages under which the aviculturist with very limited accommodation labours stepped in and upset everything. Theirs is the only cage I have in which to winter my best Foreign Finches; I had left the latter as long as I dared in the garden, but soon they flooded the Waxbills' cage and overwhelmed the nest.

RAMBLES AMONG THE WILD BIRDS (No. II.)

By the Rev. F. L. BLATHWAYT.

A VISIT TO THE FARNE ISLANDS.

“The myriad shriek of wheeling ocean-fowl.”

June 23rd, 1898, will always be a red-letter day in my memory, for it was on that day that I was able to pay a long-wished-for visit to the Farne Islands, those famous nurseries of many kinds of sea-fowl.

The Oxford term was just over, and all thoughts of ‘Mods’ and ‘Greats’ were banished to the winds, as, on the evening of June 22nd, I found myself, with my brother and two college friends, on the platform of the little station of Chathill, near the coast of Northumberland.

A drive of a few miles, during which the lights on the Farnes could be seen twinkling in the distance, brought us to the little village of Sea Houses, where we were to stay for the night. As soon as we entered the Inn we felt we were already among the birds. The walls of the little parlour were decorated with photographs of the islands and their feathered inhabitants, while stuffed Gulls and Guillemots and cases of birds' eggs reminded us that we were near one of the most famous breeding haunts of our British sea-birds. We made arrangements with

the boatmen for an early start on the morrow and then 'turned in' to dream of wonders in store for us.

There was no lingering in bed the next morning, and a glance at the East convincing us that it was going to be a glorious Summer day, we all raced away in high spirits for a dip in the icy waters of the North Sea, and, after a somewhat hurried breakfast, assembled at the quaint little harbour with camera and field-glasses, some time before the appointed hour. A few Terns were diving for their prey, and some Eider Ducks were floating on the water, but there was little evidence that we were within a few miles of teeming colonies of birds.

The outward voyage was slow owing to the absence of wind, and seemed doubly so to us who were straining our eyes at the black rocks in front, and longing to be scrambling over their rough surface. As we approached the islands the bird life increased. Parties of Guillemots were hurrying across our bows, just above the waves, and many comical little Puffins, or 'Tammies' as the boatmen called them, were floating on the water, hardly taking the trouble to get out of the way of our vessel. Presently two Gannets in immature plumage, wanderers no doubt from the Bass Rock, flew lazily past us, apparently gorged with fish. We steer close under the flat-topped Pinnacles and land on a corner of Staple Island, one of the group of Outer Farnes.

There was no delay about getting ashore, and scrambling up the rocks, we soon found ourselves in the middle of a large colony of Lesser Black-backed Gulls (*Larus fuscus*). The birds rose at our approach, filling the air with their harsh cries of 'How, how, how,' and circled over our heads, one or two bolder than the rest sometimes swooping down upon us if we walked too near their eggs or young. The nests were placed on the bare rock or among a luxuriant growth of sea-campion, and only consisted of dry grass and weeds roughly put together. Most of the nests contained two or three eggs, but some of the young had already been hatched. It is found desirable to keep down the numbers of these Gulls, as they are inveterate robbers of the eggs of other sea birds.

A few pairs of Herring Gulls (*Larus argentatus*) were nesting among the Black-backs, and the soft soil on the top of the island, overgrown with sea-campion, was honeycombed with the nesting burrows of the Puffins (*Fratercula arctica*). The ground was constantly giving way beneath us, and we often found that we had trodden through a Puffin's burrow the owner of which, if 'at home,' did not appear to be very pleased, biting fiercely with her formidable bill, if handled. Usually, however, the sitting birds scuttled away from beneath our feet as they heard us approach, and made off to sea, leaving in the hole either a single, much discoloured egg, or a young bird covered with sooty down. The sea below was dotted all over with the odd-looking 'Tammies,' and many others were flying about in all directions, some carrying little fish in their bills.

Just off Staple Island stand the curious flat-topped rocks, known as the Pinnacles. We had passed close under them before landing, and had seen Guillemots hurrying off them in streams, but we were hardly prepared for the sight which met our gaze when looking down on to them from the cliffs of Staple Island. The surface was absolutely covered with Guillemots (*Uria troile*), most of them sitting upon a single egg, laid on the bare rock, and one could not help wondering how any more birds could possibly find a resting place, yet many were continually coming in from the sea, and these, alighting on the backs of their comrades, squeezed themselves in amid a chorus of purring and grumbling notes. It seems impossible that each bird can know exactly where her own egg has been laid, and though some observers say that this is the case, it would be an exceedingly difficult statement to prove. Many Guillemots, finding no room on the flat summit, had clustered on the ledges, looking like swarms of bees, and some, finding no room even here, were forced to leave the Pinnacles and had laid their eggs on the cliffs of Staple Island just opposite the main colony.

On the sides of the Pinnacles and on the ledges and in the clefts of the steep cliffs opposite, the Kittiwakes (*Rissa tridactyla*) were breeding in fairly large numbers. Their nests were made chiefly of sea-weed and were stuck against the face of the cliffs wherever a small ledge of rock afforded sufficient

hold. These contained one or two eggs and occasionally a newly-hatched bird. These pretty little cliff-loving Gulls were flying all around us and filling the air with their cries, sounding like the words 'get-away-ah' 'get-away-ah,' with the accent on the third syllable. Reluctantly we listened to their entreaties and turned away with regret from this animated scene.

On our way back to the boat, we almost trod upon an Eider Duck (*Somateria mollissima*) sitting upon her four or five eggs. As she left her nest she squirted over the eggs a very evil-smelling yellowish fluid. The object probably was to keep off enemies, but I very much doubt whether it would be successful in keeping off the marauding Gulls which are ever on the look out for uncovered eggs on which to make a meal. When the watchers, who are placed on the islands to take care of the birds during the breeding season, find an Eider Duck's nest uncovered, they tear up some grass and scatter it over the eggs, lest they may catch the eye of one of the rapacious Black-backed Gulls. We found several other nests of the Eider Duck with their warm lining of down, and one bird sat so closely that she allowed us to stroke her back, and did not even then leave her eggs. The birds, however, usually left if we attempted to touch them.

Leaving Staple Island and the Outer Farnes, we steered S. W. to the inner group of Islands which are two or three miles nearer the mainland. Out to sea, the Crumstone Rock, haunted by seals, was visible above the water; and more to the North the Longstone Lighthouse recalled to our minds the story of the wreck of the 'Forfarshire,' and the heroic deed which has immortalised the memory of Grace Darling.

We lauded on one of the Weddums or Wideopens, and, scrambling up to the top, found a small colony of Cormorants which, the watchers told us, had only recently settled there. Here we found a few more Eider Ducks sitting and also two nests of the Oyster-catcher (*Hæmatopus ostralegus*), each containing three eggs. These latter birds are very wary, and it is almost impossible to see them upon their nests. On the Inner Wideopens an enormous colony of Arctic Terns (*Sterna macrura*) were breeding. The birds rose in front of us like a great white

cloud, and flew about, over our heads, in all directions, looking like a shower of huge snow-flakes. It is a sight, which, when seen for the first time, cannot fail to leave a vivid impression on the mind. The air above seems full of the dainty little Terns, resembling big white Swallows, and the chorus of their cries is almost incessant; while the shingle beneath is so thickly covered with their eggs that it is quite necessary to pick one's way to avoid crushing them. Each bird lays two or three eggs in a very scanty nest, sometimes quite close to high-water mark. At the time of our visit many of the chicks had been hatched, and were crawling about among the pebbles which they very much resembled in colour. Occasionally a bird, leaving the wheeling crowd above, would make a bold dash and almost strike us, and one of the watchers showed us a scar on his head caused by the bill of one of these little birds, which had struck him with so much force, through his cap, as to draw blood from the wound.

Robert Darling, another of the watchers, and a nephew of Grace Darling, told us that there were two or three pairs of Roseate Terns (*Sterna dougalli*) nesting in the colony, and that he could distinguish them by their harsher note; but although we scanned the fluttering crowd with our field glasses we were not fortunate enough to identify this rare species.

On the Knoxes, a sandy ridge connected with the Wideopens at low tide, a very flourishing colony of Sandwich Terns (*Sterna cantiaca*) were breeding. It was easy to distinguish these birds from the other Terns by their greater size. Their beautifully marked eggs were laid in the merest pretence of a nest, and were placed so closely together that a dozen or more clutches could be seen at one glance. In the middle of this colony we found four eggs of the Ringed Plover (*Ægialitis hiaticola*) laid on the bare sand.

The common Tern (*Sterna fluviatilis*) also inhabits the islands, and probably many were breeding in the colony on the Wideopens and Knoxes, but the majority certainly belonged to the Arctic species.

We had by this time become almost bewildered with the multitudes of birds we had seen, but the boatman told us that, as the tide was low and the sea calm, we had a good opportunity for landing on the Megstone Rock. Accordingly we steered N.W., and soon arrived at this famous but unsavoury haunt of the Common Cormorant (*Phalacrocorax carbo*). As soon as we landed our nostrils were assailed by 'a very ancient and fish-like smell,' and when we got among the nests, this, under the hot rays of the sun, became almost unendurable. The surface of the rock was painted white with guano, the accumulation of many years, and the rotting remains of fish were strewn in all directions. *Hinc illæ lacrimæ*. However, we put up with this for some time as the colony was a large and most interesting one. The big black birds flapped lazily out to sea on our approach and swam about in a scattered flock near their home. The nests consisted of large piles of dry sea-weed placed on the bare rock, and contained pale green eggs roughly coated with lime, or newly-hatched young. These latter were black and naked, and were, I think, the ugliest little creatures I have ever seen. Among the Cormorants' nests we were surprised to find two or three eggs of the Guillemot, laid in crevices of the rock. We were glad to leave the Cormorants in possession of their island, and to take big draughts of pure sea air. The fishy odour, however, still seemed to cling to us, and it was some time before we could get quite free from it. Even now, when I see a Cormorant, I seem to get a whiff of the Megstone Rock.

A steady and favourable breeze had by this time sprung up, and so, as it was getting late, we determined to turn homewards. The breeze freshened just at the right time, and so, skimming merrily over the water, we soon found ourselves once more at the little harbour at Sea Houses, after having spent a day among the wild sea-birds which will long live in our memories.

NOTES ON DOVES.

By ROSIE ALDERSON.

PART III.

*(Continued from page 109).*THE "BLUE-HEADED" TURTLE.* *(See plate).**Turtur humilis.*

This very pretty little dove is not often imported, but a few cocks were sent to England last autumn. The sexes are not alike, and unfortunately both my birds are cocks. In colouring the "Blue-headed" is something like the Parson-finch. It has the same grey head, and brick-red body. A black collar goes half round the back of the neck. It is considerably smaller than the Senegal Dove, and seems to vary in size, for one of my birds is much larger than the other. The Blue-headed Turtle is a very gentle little bird, and it seems a pity it is not more freely imported. Its habitat is Burma, China, the Philippine Isles, and other places. I gave about fourteen shillings for my two birds.

THE NECKLACED DOVE.

Turur tigrinus.

This dove has always been one of my greatest favourites; the arrangement of its quiet colours is so beautiful, and their blending so harmonious. The Necklaced Dove comes from Burma. In size it is about the same as the common Barbary, but more slender and elegant. Like many other doves the breast is vinous; the head is greyish, with a broad collar half-way round the *back* of the neck (not in *front* as in the Senegal Dove) of rich black and white feathers, giving quite the appearance of minute checks. The back is olive brown, with a buff tip on each feather. In my old cock these buff spots are very round and distinct, which gives him a particularly handsome look. I have

* Known in India as the "Ruddy" Dove. Salvadori describes the female thus: "General colour pale brown, but the lower parts vinous grey where vinous red in the male; there is a black collar as in the male, but edged above with whitish grey."—ED.

Avic. Mag.



BLUE-HEADED TURTLE-DOVE.
Turtur humilis.

Photo by D. Seth-Smith.



bred many young ones, but none of them have equalled the old bird in their markings. I have had him now for some years. He was an imported specimen from Burma. The cock Necklaced Dove looks the most imposing when he coos—for his fine collar is all puffed out until you would almost think he had a ruff round his neck. My old friend has one grave fault, he is somewhat flighty and impatient over his nesting arrangements. The hen is a pattern bird, and will never stir from the nest on any consideration, but when the cock is taking his turn on the eggs I sometimes think he is *only too glad* of an excuse to leave them on my coming into the aviary. Young Necklaced Doves are very pretty little things, soft drab in colour, with the most innocent round eyes imaginable. Necklaced Doves may be had from 12s. 6d. a pair and upwards.

THE WHITE-WINGED ZENAIDA DOVE.

Melopelia leucoptera.

In the Magazine for last October I wrote a full account of these pretty doves—so that it seems hardly necessary to say much about them here. Their general colouring is a soft olive brown, with a broad white band crossing the wings. The eyes are orange surrounded with a patch of sky blue skin, which greatly enhances their beauty. I found my cock White-winged rather aggressive towards other birds in the nesting season, but he never did any real harm. He seemed to think that because the nest was such an event *to him*, must be equally so to every other bird in the aviary. He would lower his head until it was in a straight line with his body—and then make for any inoffending bird that happened to be near him, but after all this show of fierceness he generally quieted down, and did nothing more than chase the other doves.* I found the White-winged Doves steady sitters and excellent parents. Three other pairs of doves nested in this aviary (which is 16 ft. by 6½ ft.) at the same time, namely Bleeding Hearts, Necklaces, and Senegals, and all reared young ones successfully. I took out several of

* A male *Melopelia leucoptera* in our possession was such a terribly quarrelsome bird that we were glad to despatch him to the Zoo.—ED.

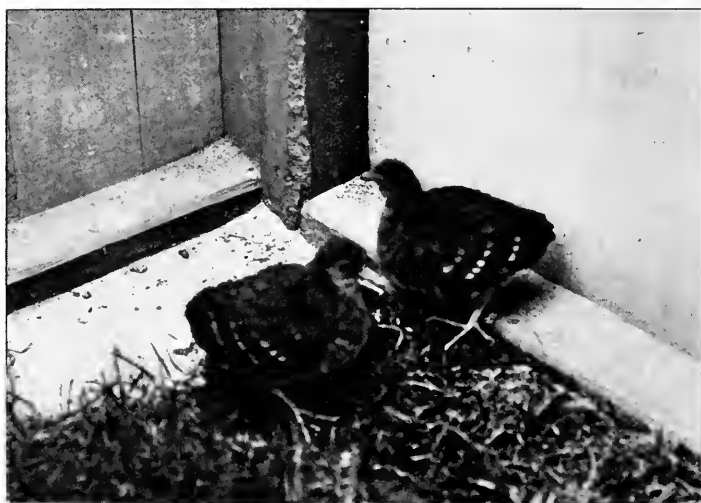
the earlier broods of young birds, but found, in spite of this, that the aviary was too full. I gave 15s. for my pair of White-winged Doves when newly imported.

THE BLEEDING-HEART DOVE.

Phloganas luzonica.

It is said that at one time the natives of the Philippine Isles, where this beautiful dove comes from, used to keep its presence there a secret, so as to retain the monopoly of it to themselves. I have at present six Bleeding-hearts, besides two more that I am just sending to a friend. In colour the Bleeding-heart is ash-grey, with darker bands crossing the wings. The crown of the head is grey, the lower part of the face and throat pure white, the breast whitish with a patch, irregular in shape, of blood-red feathers. So realistic is it that visitors before now have thought the bird was hurt. The back of the neck is as metallic and changeful as the colours in an opal, a perfect glory of green and blue. But no description can do the Bleeding-heart justice. It must be seen to be admired as it deserves. It is a tame dove, and yet a very timid one, for when frightened it will run into a corner and try, like the Ostrich, to hide its head, long after the imagined danger is past.

There is a beautiful old legend about the Bleeding-heart. Long ages ago the Bleeding-hearts had all snowy breasts as white as their throats, but at the Crucifixion one settled on the Cross, and a Roman soldier shot it with an arrow in the breast. Ever since then the birds have worn the "bleeding heart." The young birds are dear little creatures covered with dark chocolate down and buff bars across the wings. They are not unlike a small Woodcock in appearance, though the beak of course, as in all young doves, is thick and heavy. The "heart" first appears as a slight streak of red when the bird is a few weeks old. This dove costs from 20s. to 25s. each bird, and is only seldom in the market. I thought, after much trouble, I had got a pair, for they agreed so well, but I found out both were cocks. I then advertised for a hen, but got no response, nothing at all, except a letter from a lady, a complete stranger to me, asking if I had a



YOUNG BLEEDING-HEART DOVES.
Phlogoenas luzonica.

spare cock I would part with, as she had a hen, that had laid a great many eggs, and she had spent quite a small fortune in trying to find it a mate. This letter put a bold plan into my head. I did *not* want to part with either of my cocks, they were such beauties, but I *did* want very much to breed this dove, So I wrote to the lady and said, "Will you let me have your bird for the summer, and if I can rear any young ones we will divide them." After a few days an answer came to the effect that "Joey" was to come to me. Her answer went on to say how very much she valued the bird, it was such a pet, and used to let her catch it without being frightened, and it would often come and settle on her head. The affection she had for the bird was evidently so genuine that I began to regret what I had done. Suppose the bird died while with me! I began to imagine all sorts of dreadful fates for it, and felt quite uneasy.

But in bird-keeping (as in other things) it is unwise to make troubles before they come. "Joey" arrived in March, and from that day to this she has never had a day's illness. The Bleeding-hearts had many nests, but from various causes I have only reared three young ones. Two are the finest birds I have ever seen. I wonder if it is a *general* rule that an aviary bred bird is larger than a wild caught one? The third young one is just changing from the brown plumage to the grey. I have never found the Bleeding-heart quarrelsome or tiresome with other birds, and I have tried it with tiny finches and waxbills, and with other doves.* The Bleeding-hearts are particularly fond of ground biscuit, and are always on the look out when I fill their tin with a fresh supply, and begin to eat it at once.

(To be continued.)

* I found it positively dangerous to a Picui-dove (steel-barred) which had a drooping wing and was consequently unable to escape rapidly when the large bird rushed at it.—A.G.B.

THE CONSTRUCTION AND FITTING OF SMALL AVIARIES. Some Notes and Notions.

By H. C. MARTIN.

The aviary most to be desired, and the one with which one is most likely to be successful in breeding birds, is no doubt that of large dimensions where their natural surroundings can be to a great extent reproduced and where they can be left largely to their own devices as far as the means and material for nesting are concerned. It is not, however, very often practicable to build an aviary of this type, and for one such I think there must be many, like my own, in which the birds live under conditions which are distinctly unnatural, however suitable they may be. For my own part, much as I would like to have my birds almost at liberty, and to enclose a whole garden for them if I could, I must say I think the small "artificial" type of aviary has its advantages, and is more interesting in this way, that its inmates must of necessity be tamer and that their goings and comings are under closer observation. I must confess, too, to a certain predilection for a building on "ornamental" lines as well as to a weakness for symmetry, new paint and general spick-and-span-ness.

One learns by experience and, simple as it may seem at first sight to build and fit out a home for a score or so of small birds, it is astonishing (at least, I should say, it was in my case) how many points one may overlook or fail to foresee, and how many more will suggest themselves from time to time. I venture then to record a few such points as have occurred to me in my small experience, and to make one or two suggestions for the possible improvement of the small, "artificial" aviary, with a view to making it most suitable for the birds and most convenient for the owner.

When I decided to build my aviary—a little span-roof structure, 12ft. by 8ft. by 7ft. (which, to begin with, would have been much better split in two and built as a 24ft. "lean-to"), I thought how nice it would look amongst that foliage three-parts of the way down a rather long garden. So it did—in summer-

time—except that those shrubs kept off more sun than I had expected, and seemed to attract an undue amount of moisture. But the prospect is not quite so fair, on a January morning say, when one has to wade down through 6 inches of slush or, with a chisel in one hand and the kitchen kettle in the other, set forth in semi-darkness to tackle that solid block of ice in the water-pan, reflecting meanwhile that time and trains (and, incidentally, hot breakfasts) are in the habit of waiting for no man. The moral of this is that the next time I build an aviary it is going to be rather nearer head-quarters, for the benefit both of the birds and of their owner.

When I first started, I carefully laid out a neat little plot of turf and planted a small bush—I forget of what kind—in the centre. The effect was charming, and I do not think I spent less than an hour at first in happy contemplation of the doings of my dozen or so of small Britishers. Alas! in a week or so's time; my poor turf! An enterprising Yellow Bunting had nipped most of it off at the root, blade by blade, for the sake of the juicy ends which this bird, like the Green Cardinal, is very fond of "chewing," if one may so express it. And, as for the bush—well! it was decidedly the worse for wear. Moral No. 2; unless your aviary is very large, your birds are very few, and yourself very, very fond of hard work, do not go in for interior decoration of this order; it is much better to content oneself with plain gravel and to keep all garden work outside; a neat flower border, I need hardly add in passing, gives a very nice finish to an aviary and has the merit of attracting insects.

There are gravels and gravels: one variety I have met with has the property of being uncommonly muddy in wet weather and uncommonly dusty in dry weather. This is the sort to avoid, though it must be said that fine, clean gravel with sandy particles is not easy to obtain.

I find that it does not do in a small aviary to have open wire-work at the top; cats, or perhaps an owl, will startle the birds at night; up they will go towards the light, bumping up and down like moths on the ceiling and perhaps in the morning you will find half a dozen unhappy individuals sitting

bunched up exhausted and with bleeding skulls. When this happens, too, I find that the feathers at the base of the beak seldom grow properly again.

At first I brought my wire-work in the outer flight down almost to the ground level, but I soon found it desirable to put in an Sin. edging. Feathers and building material will collect at the bottom of wire-netting and defy all ordinary attempts at tidying-up, while young birds, not yet able to fly, will do their level best to commit suicide by pushing their soft, silly skulls into all sorts of hard wiry corners. The edging prevents this and, to some extent, keeps the rain from splashing in. It also makes it difficult for cats to do any mischief, and more than a few of our members can, I daresay, tell a tale of what grimalkin is capable of doing even through small wire-work.

My aviary was constructed with rather too many cross framings inside ; this I should avoid another time in order to do away with the numerous corners where dust and dirt are sure to collect.

Canary-seed husk is most untidy stuff and cannot possibly be swept up from a gravel floor, *i.e.*, unless you sweep up the gravel as well. Most birds will sit and crack their seed on or by the food-pan and, this being so, it occurred to me to fit in the outer part of my aviary a large, open, detachable "feeding box," I suppose I may call it, in which the seed-pans are placed and which catches nearly all the debris, so that it may easily be removed. I have endeavoured to illustrate such a box (Fig. 1) which, if I built another aviary, I should make of stoutish wood and place outside, providing it with a door as at A B, hinged at the top so as to close by its own weight, and which could be provided with a lock. This would save much dodging in and out and avoid disturbing birds nesting possibly close by. Ordinary sardine-tins, thoroughly cleansed and with the rough edge neatly hammered down, or better still, with a stout iron wire soldered round the rim, will be found to make very suitable holders for the different kinds of food. Disguise them with an outside coat of hard enamel-paint and no one will detect their humble origin.

Half the pleasure in keeping birds is, to my mind, to have them tame and confiding, and for this reason I have a great objection to the catching-net, always preferring to quietly trap a bird if I can possibly spare the time—and there are some, however tame, which are wary enough to take a deal of trapping. For this purpose I would suggest using the feeding-box I have described, fitting it with a quietly-closing spring netting like that of a bird trap. A light wire-work frame could be attached above it to close the opening left when the box is temporarily taken away.

A rather good way to give green food is to hang it up in an ordinary glass jar containing water. It will thus keep fresh throughout the day, and if it is tied in a bunch the birds cannot pull it to pieces and litter about the place. (I merely mention a *glass* jar because it permits you to see how much water you aren't pouring over your slippers). I have tried to illustrate such a jar (Fig. 2) and one way of suspending it; the string should be fairly stout, or Goldies and Siskins will soon tease it to a thread and possibly let the whole thing down with a run.

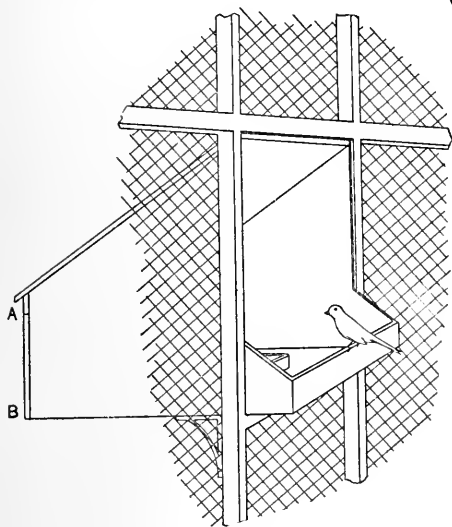


FIG. 1.

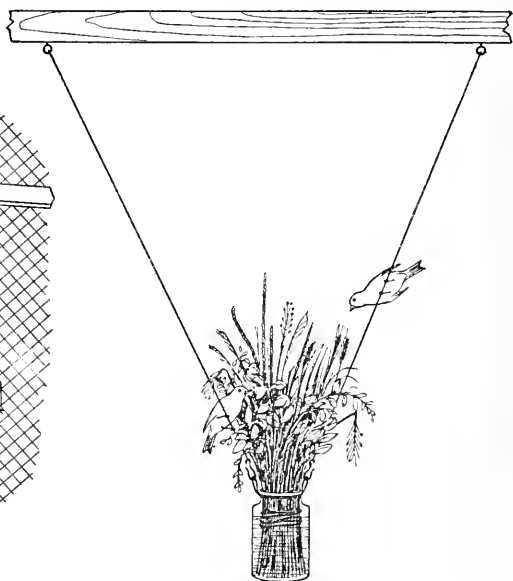


FIG. 2.

For perches I use principally small branches placed horizontally fairly high up, out of the way of one's head, and more or less on the same plane so that they do not get soiled too quickly. They cost nothing, are easy to replace, and the birds seem to prefer them to other perches, finding much amusement in stripping off the fibre and nibbling at buds and so on. It is not a bad idea to suspend in the open part of one's aviary, by the thick end, a spreading piece of branch or a small dead bush free from leaves; it soon becomes a favourite perch, especially if one places there the usual piece of cuttle-bone or an occasional apple, which I find all my birds are fond of. For ordinary, permanent perches there is nothing better than those long, round sticks, called "dowels," which are sold for 1d. or 1½d. each at the oil shops; what they are really for I have never found out, but they are of just the right size and are made, evidently by machinery, from some tough, hard wood—beech, I fancy—and are much superior to ordinary soft brittle deal. Many canary fanciers maintain, I believe, that the proper shape for a perch is broad and flat. This seems to me ridiculous since Nature makes her perches almost invariably round, and a small bird's foot is surely exactly adapted to grip more particularly a circular object. (This is no doubt why the intelligent bird-cage maker generally makes his perches square.) A proof that broad thick perches are not the most comfortable is that many birds will choose the very slenderest little twig to roost upon, and a Siskin of mine—though Siskins are certainly eccentric in the matter of roosting places—likes nothing better than to tuck himself away on a thin, solitary French nail, an inch and a half or so long, sticking out of a top plank of the aviary at an angle of nearly 45°.

Whitewash is often recommended for the inside of an aviary; for my part I think it is a great pity to use such coarse stuff on any neatly-made wood-work and, until this year, I have always employed ordinary oil paint, which has much to recommend it. This spring, however, I made a trial of one of the patent water paints, and was so satisfied with the result that I should certainly use it again. It is very easily applied with a large brush, and dries quickly like distemper but does not rub off.

I used a clear bluish-green, the effect of which is very pleasing and which shews the birds up well. Of course such paints can only be used for inside work away from moisture, and they go best on a somewhat rough surface, such as unplanned wood or plaster. The sort I used was very inexpensive and the makers state that it is quite harmless.

The nest-boxes usually offered in the shops are not of much use, and far better ones can be contrived from the various little boxes which the domestic department is generally glad to get rid of. Some, of Continental and American make, are particularly suitable, being made of sound material and sometimes even dove-tailed: cigar boxes, I find, are rather too light to work upon and need no end of soaking to get rid of their paper covering. With a centre-bit, a "keyhole" saw and a few extra nails, these little boxes can soon be converted into desirable detached residences of sufficiently artistic appearance and undeniable sanitary perfection. Of course there is just the line to be drawn between the useful and the ornamental, and it is undesirable to add any *external* decoration to the original box. In one, like the first I have illustrated (Fig. 3), my two hen Green Cardinals built a nest on the co-operative plan (there was, unfortunately, no male). And in a box, like Fig. 4, a Linnet,

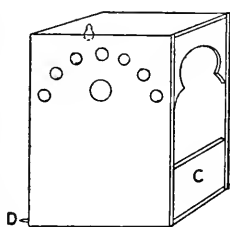


FIG. 3.

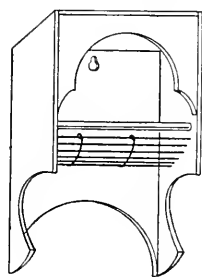


FIG. 4.

caught certainly not more than a few months before, successfully reared a brood; a sufficient proof, I think, that conditions even approaching the natural are by no means essential to success.

These nest-boxes are best painted or varnished inside and out, and if the front pieces, as at C for example, are made

detachable they can be easily cleaned. A couple of little spikes put in at the back as at D will ensure their hanging firmly.

I do not know whether it is a new idea to supply one's birds in the Winter-time with little shelters, open at the bottom, specially for them to roost in, but when I tried the experiment there was soon great competition for the possession of these "cosy corners." I have out-lined patterns of two such roosting-boxes (Figs. 5 and 6) which will perhaps make my meaning

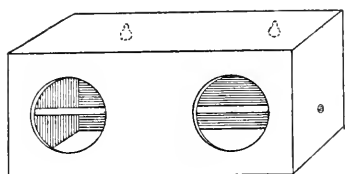


FIG. 5.

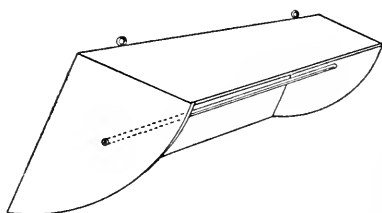


FIG. 6.

clearer. Of course such things would be valueless in a well-sheltered aviary, but my own is rather exposed and the birds seem to appreciate the protection thus afforded.

Amongst other things, I think I should consider in building another aviary, are the advantages of making it, at least as far as the wire-work is concerned, in separate, easily detachable sections; of raising the ground for the floor a foot or so from the general level; of using patent, wire-woven, transparent sheeting for roofing and lights (I once used ground glass but the birds thought they could fly through it, and it had to be covered with netting); of an automatic water supply working from the outside on the siphon or intermittent spring principle; of specially arranging a portion of the aviary so that a camera could be successfully and readily brought to bear upon one's birds.

Some, at least, of these "*multa et mira*" things, many and wonderful, as the Latin primer says, I hope to carry into effect "one of these fine days," but meanwhile I find I am consuming with elementary trifles a most immoderate quantity of our good Editor's space and therefore hasten to conclude, merely expressing the hope that some of our members, though they may

smile upon my sardine-tins and catching-boxes, may possibly find in what I had written a point worth noting or a suggestion worthy to be carried out in anticipation of the coming Spring.

THE RUFF.

Machetes pugnax.

By G. C. PORTER.

It would be difficult to find a more interesting and hardy bird than the above named wader. At first sight it appears a bird totally unsuited to captivity, but such is by no means the case, as better acquaintance with it proves.

The Ruff is almost universally distributed, many breeding in the Arctic Regions, while others have been found in different parts of India, Asia and America, but I am not sure whether it has been found in Australia. This bird belongs to the Snipe family, and is a summer visitor to this country, arriving about the end of March, when it resorts to the Fens to breed. Each Ruff takes from three to five Reeves, as the hens are called, and at this period guards them very jealously, fighting furiously with any rival who may be in the vicinity. This bird, contrary, I believe, to the habits of almost all other waders, is polygamous, and this is sufficient to account for its pugnacity. This was the time when the fowler used to net them, the attention of the birds being so occupied in fighting one another that they did not notice his approach, and so fell easy victims. The draining of the Fens has made the Ruff very scarce in this country, but one has been shot during the last few weeks on the Irrigation Farm here at Bedford, and it still remains a common bird on the Continent, especially in Holland. Considerable numbers are still imported to Leadenhall Market. In the Spring the Ruff puts on the breeding plumage for which he is so well known. The face is ornamented with light yellow skin, ears ornamented with blue tufts, while round his neck spreads the beautiful ruff shining—in the case of my bird—with blue and green tints. As the summer advances, however, the feathers begin to drop off,

but the process is very slow, as it is now October and the face is only denuded of the small bluish green feathers and the ears have lost their tufts.* † In the winter the Ruff is very much like the Reeve, all his former glory has departed, and he is now clad in a sober suit of grey and brown, but is, I should think, about a third larger than the Reeve, and the yellow bill is very much stouter and has a black tip, while that of the Reeve is quite black.

As they are extremely fond of bathing, a good sized pan of water should be provided, and of course if anything more pretentious can be provided, such as a small pond, so much the better. A bird of this kind is absolutely regardless of the weather. This is in many respects a great advantage, as during the November Fogs and on cold winter nights one need not have any fears concerning them; they are sure to turn up ready for their breakfast in the morning. I wish the same could always be said about some of the foreign birds.

The Reeves differ very much in plumage; one would hardly know that they belonged to the same species. The Ruffs differ even more than the Reeves. I myself have seen stuffed specimens with a light brown ruff spotted with black, while Gätke, in his "Birds of Heligoland," states he has twice shot specimens with this appendage pure white. The only note I have ever heard (and this is common to both Ruff and Reeves) is a low barking noise. I give them the pupæ of the meat fly, gentles, mealworms and if a pot full of earwigs or spiders can be emptied in so much the better. From experience I may say that they winter admirably on this fare. One difficulty is that, although tame enough with me, the sight of a cat, or a strange noise, causes them to fly up and dash their heads violently against the netting, so it is advisable to cut a few feathers from one wing. This does not detract from the appearance of the birds, and I found it to act satisfactorily.

* December 4th—The Ruff has not yet entirely disappeared, which I attribute to the mildness of the season.—G. C. P.

† In wild birds the ruff is entirely lost by October.—J. L. B.

They eat a large quantity of canary seed, swallowing it whole, and although this certainly is not natural it does not seem to disagree, as they are in perfect condition. I suppose it is too much to hope to breed them, but then the unexpected often happens. I have certainly given them every opportunity, as the aviary is close on one hundred feet long with plenty of cover. As I have previously remarked, they are extremely fond of a bath, which they take dipping up and down like a duck. Among themselves they are extremely quarrelsome and merit to the full their names "machetes" and "pugnax," bickerings frequently taking place among the Reeves, which at meal times sometimes develop into stand-up fights. Beyond pulling a few feathers out of each other, however, they do not do each other much harm. I have never seen them attack any other species, with the exception of the Corncrake, who allows himself to be bullied by every bird in the aviary, and the Porphyrios who, however, are quite capable of looking after themselves.

Judging by the small space the study of wading birds takes up in our Magazine, they do not appear to find much favour with aviculturists, which is I think surprising, as they are extremely tame and healthy, and combine beauty with an unrivalled gracefulness of form. They present a very different appearance in an outdoor aviary to the wretched specimens I saw cooped up in the Fish House at the Zoological Gardens on my last visit there. The birds appeared to be kept at an unnatural temperature and fed on unsuitable food, and certainly looked very unhappy.

What a pity an enclosure out of doors, like that provided for the Gulls, cannot be given to them. I have kept several species of wading birds, but none of them cared for any kind of soft-billed food. During the winter they have lived almost entirely on mealworms, which so far from proving "too stimulating," seems to agree with them perfectly.

I have just read with some interest the article entitled "The Misuse of the Mealworm," and may say that my experience is very different. I have found that mealworms form a perfect food for all waders, rails, etc., and they cannot possibly

have too much of them. I may say that the Ruff and two Reeves alone consume about a pint per month and show no ill effects whatever. *

BIRD NOTES FROM THE ZOOLOGICAL GARDENS.

The following species were exhibited for the first time in the Zoological Gardens, between January and June, 1901, no less than 21, out of the 27 recorded, having been presented by our member, Mr. E. W. Harper, F.Z.S., M.B.O.U.

1901.

JAN. 1st.	2	Blue-winged Sivas, <i>Siva cyanuroptera</i> .†	..	Himalayas.
„	1	Silver-eared Mesia, <i>Mesia argentauris</i> .	..	„
„	1	White-capped Redstart, <i>Chimarrhornis leucocephalus</i> .	..	„
„	1	Rufous-bellied Niltava, <i>Niltava sundara</i> .‡	..	„
„	1	Burmese Roller, <i>Coracias affinis</i> .	..	Assam.
„	3	Painted Snipes, <i>Rhynchœa capensis</i> .	..	India.
„ 4th.	3	Open-bills, <i>Anastomus oscitans</i> .	..	„
FEB. 26th.	2	Fox Sparrows, <i>Passerella iliaca</i> .	..	N. America.
MAR. 8th.	1	Blue Whistling-Thrush, <i>Myiophonus caruleus</i> .	..	China.
„	1	Jerdon's Green Bulbul, <i>Chloropsis jerdoni</i> .	..	India.

* Mr. G. C. Porter does not believe in "The Misuse of the Mealworm," which is just as he thinks fit, but his arguments to the contrary are not convincing. He tells us that his Ruff, with many mealworms, did not moult satisfactorily, whereas mine, with very few or no mealworms, always moulted out clean and tight. His birds did not attempt to breed, whereas mine I found to be ready breeders, even in my comparatively small aviary.

I have invariably found the Reeve a very nice bird in the aviary, but every Ruff I have had has been an unmitigated nuisance, owing to the way he constantly and unceasingly bullied the other ground birds, especially the smaller ones; and I formed a very poor opinion of his pluck.

It is a misfortune to have to cut the wing of a ground bird. It is better, if in an aviary, to cut a little off the tip of both wings; the birds then cannot hurt themselves, but fly sufficiently to aerify their lungs and dry their feathers in cold wet weather. After the first moult, with Ruffs and most birds, it is not usually necessary again to cut the wings, at any rate if only "tipped" in the first instance.—R.P.

† Coloured plate and account of this species, by Mr. E. W. Harper, in *Avic. Mag.*, Vol. VIII. p. 243.

‡ See article on the Rufous-bellied Niltava, in *Avic. Mag.*, Vol. IX. p. 24.

MAR. 8th.	1	Black-crested Yellow Bulbul, <i>Otocompsa flaviventris</i>	India.
"	1	Indian Green Barbet, <i>Theroceryx zeylonicus</i> ..	"
"	2	Blyth's Hill Partridges, <i>Arboricola rufigularis</i> .	"
APR. 11th.	1	Rufous-necked Scimitar Babbler, <i>Pomatorhinus ruficollis</i> .	"
"	1	Golden-backed Woodpecker, <i>Brachypternus aurantius</i> .	"
" 29th.	1	Velvet Scoter, <i>Oedemia fusca</i> .	.. Europe.
JUNE. 11th.	1	White-collared Onzel, <i>Turdus albicinctus</i> .	.. British India.
"	1	Large Andaman Parrakeet, <i>Palcornis magnirostris</i> .	" "
;	1	Tickell's Flower-pecker, <i>Dicaeum erythrorhynchus</i> .	" "
"	1	Cinnamon Tree-Sparrow, <i>Passer cinnamomeus</i> .	" "
"	1	Rufous-breasted Accentor, <i>Accentor strophiatus</i> .	" "
"	1	Black-throated Accentor, <i>A. atrigularis</i> .	.. " "
"	1	Eastern Meadow-Bunting, <i>Emberiza stracheyi</i> .	" "
"	4	White-capped Buntings, <i>E. stewarti</i> .	.. " "
"	2	Indian Button-Quails, <i>Turnix tanki</i>	.. " "
" 18th.	1	Large-billed Weaver-bird, <i>Ploceus megarhynchus</i> .	Naini Tal.
" 29th.	2	Wallace's Lories, <i>Eos wallacei</i> .	.. Waigiou.

Among the interesting additions were four hybrid Parrakeets (between *Platyercus eximius* and *P. pallidiceps*), two hybrid Parrakeets (between *Psephotus chrysopterygius* and *P. multicolor*), four hybrid Macaws (bred between *Ara macao* and *A. militaris*); this is, as far as is known, the only instance on record of hybridism between two species of Macaw in captivity; and two hybrid Finches (between *Munia malacca* and *M. rubro-nigra*). An August Amazon, *Chrysotis augusta*, from Dominica, and a Guilding's Amazon, *C. guildingi*, from St. Vincent, were also obtained, so that the forms peculiar to the Lesser Antilles were all to be seen in the Parrot House at one time: the former was figured in Vol. VIII. p. 151 of the Magazine, and it is hoped soon to figure the latter species.

REVIEW.

PARRAKEETS.*

Aviculturists, and especially those who care about Parrots, will welcome the appearance of Parts II. & III. of Mr. Seth-Smith's book on the Parrakeets.

In these two he finishes the *Conurinae* and the *Palæornithinae*, comprising amongst the former the Quaker Parrakeet, the Blue-winged Parrakeet, and the *Brotoperys* family. We have full and interesting accounts given us of the Cactus, Brown-throated, Patagonian, and Carolina Conures. It is rather to be regretted that, if the Carolina Conure is to become extinct, a coloured plate was not given of it.

No doubt Mr. Seth-Smith intends his work to be a help to the aviculturist, and there is nothing for which the beginner is more grateful than good accurate plates. It is very difficult to construct a bird to the mind's eye from the most accurate description. And Mr. Seth-Smith's plates are all so good that they make us, like Oliver Twist, "ask for more." It would have been a good thing also to have one of *Henicognathus*. It is very possible that a record of rare birds may be lost from people, who have come across them in captivity, not in the least recognising what they were.

Perhaps it should be taken as the note of a good book that it should make us regret that the whole of it cannot be plums, like Mr. Phillipps' description of the Tui.

The account of the Quaker Parrakeet is almost better than the bird itself deserves. The Author must have missed the account of the escaped one in the New Forest, which appeared either in this Magazine or in *The Feathered World*, or he would not have failed to insert the curious story of this bird making itself a nest in a thatch.†

His accounts of the interesting section of *Palæornis* are

* PARRAKEETS, being a Practical-Handbook to those species kept in captivity; by D. Seth-Smith, F.Z.S., M.B.O.U. Parts II. & III. London: R. H. Porter, 7 Princes Street, Cavendish Square, W.

† See *Avic. Mag.*, Vol. VII., p. 86-7, also *Zoologist*, Jan., 1903.—ED.

very good, and he really enables the beginner to distinguish readily between two easily confused species—*P. rosa* and *P. cyanocephala*: though here again one would have liked a plate of the two species side by side.

In *Polytelis* he gives a charming plate of Barraband's Parrakeet, but as that is a fairly well known species it might have been better to have given one of *Spathopterus alexandræ*. By the way, it really seems like divisions run mad, when a bird so obviously a *Polytelis* is erected into a separate genus on account of a slight difference in one wing feather! However, that is not Mr. Seth-Smith's fault, though the British Museum Catalogue of 1891 does not separate it.

The following parts will be awaited with much interest.

It would be a help to a good many people if a diagram of a bird were given, with all the separate parts such as lores, scapulars, primaries, secondaries, etc. clearly marked out. The professional phraseology is to many people so much Greek.

F. G. DUTTON.

CORRESPONDENCE.

"HYBRIDS " (*see page 78*).

SIR,—On pages 6 and 7 of Vol. VI., there is a notice of some birds reared in my outdoor aviary by a cock White-throated Finch and a hen Canary. I decided afterwards that the father of the two hybrids was the Bearded Seedeater mentioned at the beginning of the article. I have the variegated one now; he is a lovely singer, and very brilliant in colouring.

Mr. Norwood might like to have his attention drawn to this.

GRACE ASHFORD.

NIGHTINGALE NOT MOULTING.

SIR,—I should like an opinion on the following:

"In November, 1901, I got a cock Nightingale, but since I got it it has never moulted, and although I pulled its tail in October (the feathers being all broken) the new feathers have not come. The bird has been in perfect health to all appearances, and is now singing with "open mouth" every day. I feel quite satisfied with the food I am giving my birds. I have another Nightingale, and also a Blackcap and Woodlark in full song—these

two latter I have had caged over three years. What I should like to know is, would it be wise to try and force it to moult, or let nature have its way?"

DAVID BENTLEY.

The following reply was sent to Mr. Bentley :

I am not sure that I am the best person to answer your question, because I never yet had any bird which failed to moult at the proper time. Possibly this may be due to the fact that most of my birds are under glass, and are, therefore, not only kept very warm in the moulting season, but are not subject to any draught.

I should certainly be inclined to induce a moult by keeping the bird warm (about 60 deg. Fahr. if possible) putting a few drops of syrup of phosphates daily in the drinking water and a little powdered cuttle-bone in its soft food.

A. G. BUTLER.

GOULDIAN; PIN-TAILED NONPAREILS; CALIFORNIAN
QUAILS; BUDGERIGARS.

SIR,—I should be very glad of any hints regarding the treatment of the smaller delicate birds on first arrival from a journey. I have had quite a number of Pin-tailed Nonpareils and Gouldian Finches sent me from a London dealer lately, and have utterly failed with them.

They have had rice in the ear, millet in the ear, ants' eggs, etc., to choose from, but have declined from the first. The journey proved too much for most of them. They have been put in a temperature of 50° to 55° Fahr.

I have a brood of Californian Quails about half-grown; one of them is brown all over; the other four have white or whitish grey on the breast and wings. Is this usual?

I have had a lot of Budgerigars this year between a yellow cock and ordinary hen; the young have all taken after the hen and shew no leanings towards the cock bird's colouring.

G. RICE.

The following reply was sent to Captain Rice :

The journey from London to Blairgowrie is a very serious one for weak unseasoned birds, straight from a dealer's shop.

The first and most important point is to give them warmth. I fear that the temperature you mention is not sufficiently high. For unseasoned specimens of the two species you mention, 65°—70° would not be a whit too warm.

Gouldians are very simple feeders. Give them common white millet, millet in the ear, and canary now and then.

To the Pin-tailed Nonpareils' (no connection with the American Nonpareils) food I should add the best white oats and a little preserved yolk of egg.

I should feel disposed at first to place a speck of sulphate of quinine in the drinking water. A little later, you might give minute doses (in the drinking water), now and then, of syrup of hypophosphites.

But I fear none of these things will avail without extra warmth.

The plumage of your young Californian Quails is not usual nor satisfactory. Either there has been inbreeding, or something unusual about their food, or they have found your climate too cold for them. If well nurtured, it may be expected that they will moult into the normal plumage.

The result of the Budgerigar breeding is interesting, shewing the strong desire of Dame Nature to go back to the original stock.

REGINALD PHILLIPPS.

ROSELLAS AND COCKATIELS.

SIR,—Do Rosellas generally breed the year after they are hatched? Thus will birds reared last September breed in 1903?

I purchased two pairs of young Cockatiels in 1901. One pair reared young ones last season. Is not this a rare occurrence?

F. H. RUDKIN.

The following reply was sent to Mr. Rudkin :

It is unlikely that Rosellas bred last September will themselves breed this year, unless it may be quite late in the season; and it would be better for the birds themselves to wait yet another year.

We often see disputes as to the age at which Cockatiels commence to breed. Your birds seem to have begun early, though it depends a good deal at what time in 1901 they were reared.

REGINALD PHILLIPPS.

CONTINENTAL BIRD DEALERS.

SIR,—Could any of the members give us the names and addresses of reliable bird dealers on the continent. My husband and I hope to visit the continent in the spring, and we would like to bring some birds home with us, such as are hard to procure in our home markets. Where are the best markets?

MARY F. RATHBORNE.

The following reply was sent to Mrs. Rathborne :

Karl Hagenbeck, of Hamburg, is well known as an animal provider, and I think he does not altogether neglect birds. There used to be a good

bird dealer at Leipzig. Good birds may sometimes be purchased at the Zoological Gardens at Antwerp (Anvers). And Marseilles sometimes has birds which are practically never seen in this country.

Doubtless some of our members can help us with much more extensive and detailed information.

REGINALD PHILLIPPS.

MANTELL'S APTERYX LAYING IN CAPTIVITY.

SIR,—I think it may interest your readers to hear that an egg of Mantell's Apteryx was laid in the aviaries here on December 31st last. The egg was deposited in a deep scraping in the ground some distance from any building, and under a thorn tree. A pair of *Apteryx mantelli* and a pair of *A. owenii* have been for some considerable time at Lilford, living in a state of semi-freedom. They are *entirely* "self-supporting" except in very severe weather, when their natural food is supplemented by raw meat, etc. One of each species has recently died, and the two remaining have, presumably, paired. There is no reason to doubt the egg having been fertile, but it was badly cracked; and besides this, I fancy the severity of the weather would have prevented all possibility of hatching.

MILLY LILFORD.

PECULIARITIES IN THE FLIGHT OF BIRDS.

SIR,—There is perhaps nothing in which the aviculturist is more handicapped to the student of Nature than with regard to the peculiarities in the flight of birds.

This difficulty is not easily overcome, as the former studies them within the confines of a limited space, the latter studies them in the world at large; the one observing them using their wings, only as far as a few yards at most, the other seeing them where they have their freedom and where they can acquire speed and so get from place to place with the least possible exertion.

This is, perhaps, more particularly with large birds than with small, but even with the latter it is oftener the case than we suppose (as an example I will give will show).

In February last, while I was having hot water pipes fitted into my aviary, my cock Australian Crested Pigeon escaped through the aperture made for the pipes and flew away to the top of some high beech trees close by. I made haste and caught the hen, and put it out in a cage to attract his attention, in order to try and secure him with a trap cage. The day was fine, and he sat and cooed and preened his feathers for a considerable time, but after a bit, off he flew like a rocket, almost straight up into the air, and to a great height, clapping his wings against his body all the time he ascended. Then he held up his wings and

descended rapidly at a very acute angle till he reached about the same level from which he started and then he flew away and alighted on the top of a larch tree about a hundred yards off and up went his tail as he poised himself, which he did without difficulty on the thin twigs. The joys of freedom, sweet freedom, seemed to have returned to him, for up into the air he went again and again, and always in the same rocket like style followed by the rapid descent to the level of the starting point.

No doubt this is the Crested Pigeon's love flight, and in Australia I dare say he will be often seen indulging in it, such as we see the Ring Dove doing in this country.

He amused himself flying as described and sitting cooing alternately for the most of two hours, and then he began to fly about lower, often alighting on the thick branches low down on the trees, and once on the house top, and now was beginning to look for something to eat. I shifted the hen to several different places hoping to entice him down, and although he saw her perfectly, and often flew straight as if he would alight beside her, yet when nearing, never even checked his speed to do so, and he always flew at a very great speed, faster than even a Rock Pigeon.

I noticed also he did not check his speed any before alighting on a branch, but flew arrow like to where he perched, throwing up his tail to arrest his momentum.

When flying low his appearance was much like a Cuckoo and his crest was always carried on his neck, but when he mounted in the air as before described, he reminded me of a Pheasant, which, when flushed in a wood, makes for an opening in trees straight overhead, but the great rapidity of his flight was what struck me most. Out of six species of foreign Doves I have kept the Australian-crested is the only one I would call fascinating, but it has to be at liberty to see it at its best.

As night came on he seemed to get very hungry and alighted on the ground to get some grain I threw down for the poultry. I got a wire frame, raised it up on one side with a short piece of stick and a pull line attached, threw in a little hemp seed, and I soon had my Dove again and all the experience into the bargain.

Two days after this a cock Canary got out of the aviary and flew about enjoying its liberty to the very utmost, and I was very surprised to see that it delighted to sing vociferously when flying.

It took flights away out from among the trees into the open with flappings of the wings precisely the same as a Greenfinch does. I have kept Canaries in an aviary with a fairly large wire flight (16 feet by 9 feet), and although there was ample room I have never seen them indulge in their love flight with its accompaniment in song.

GAVIN ALSTON.

PEKIN ROBINS.

SIR,—A friend of mine has a pair of Pekin Nightingales with which she has vainly tried to breed, and I should be most grateful to be told where she is at fault.

The birds are kept by themselves in an aviary in a conservatory, and provided with a growing shrub, and further shelter arranged by fixing fir and other branches at the top of the aviary. The birds are in good condition, and two years built a nest by weaving soft unravelled string, grass bents, etc., but, before it was finished, in each case, the hen laid her eggs, not soft ones, from a perch, so of course they were broken. She used to squat broodingly on the earth in the flower pots, but never built in such a situation. The birds disregard a box on the wall with pigeon-hole entrances.

In the spring months they have the use of the conservatory, which keeps them entertained insect-hunting. Perhaps the right nesting material has not been provided, though almost everything has been tried, including fibre from palm stems, moss and feathers.

M. LANGFORD.

The following reply was sent to Miss Langford :

The Pekin Robins are dissatisfied with their surroundings, or with the accommodation provided for them.

They build open nests, and will not take readily to any kind of closed-in nesting-box, except the common wooden-barred German cage.

In the garden aviary they build in bushes.

In smaller places, they nest in open nest-boxes, like Canaries.

One of the earliest cases of the successful breeding of this species in England was an experience of a lady-friend of the Society, a lady who still keeps many Canaries, who, after various failures, loosed her Pekin Robins in the Canary birdroom,—“and I hung for them, at about two feet from the ceiling, a Canary nest-box, with a tiny basket, lined with flannel, tightly fixed into it. This time they did not try to build a nest, but on the 1st August I had the satisfaction of finding that an egg had been laid in the basket.” Two young were reared. See *Notes on Cage Birds*, Second Series, page 157.

String, or anything of that kind, is dangerous. Give hay, grass, etc., and small feathers, and hang up Canary boxes, etc., and Canary pans lined with felt,—and give them as much liberty as possible. The less you examine the nests the better.

REGINALD PHILLIPPS.

YEW AND BOX TREES.

The following letter was forwarded to Mrs. Gregory in answer to an enquiry:

The yew is delightful for insectivorous birds, and birds that do not touch it, but please note that it is a deadly poison to birds that partake of it. Perhaps a lopped or dead bough may be more poisonous than a living one, but death lurks in the yew tree. Of course I do not say that the Cranes will eat it. If they do not, all well. A loaded gun left lying about is all right if not meddled with—but sometimes it goes off!!!

The box is quite different. It is not poisonous I suppose, but badly disarranges the stomach. I have had many box trees in my aviary, and the birds did not seem to touch them as far as I remember. Anyway, I have never heard of a bird being hurt by a box tree in an open aviary where they have other things to nibble at. In your large garden, I should not hesitate to plant the box border, as probably the Cranes would not pick it. But, all the same, I should watch.

REGINALD PHILLIPPS.

PROPOSED GENERAL INDEX.

It has been suggested that a General Index to the first eight volumes of the *Avicultural Magazine* is much needed, and would be highly appreciated by many of our members. It is very trying, when one wishes to look up a certain subject, to have to wade through the eight volumes, in some of which the indices are not very complete. An index to the whole of the volumes would save much time, and is, we think, unquestionably needed. But the preparation and production of such a work would entail considerable expense, and the Society would not be justified in issuing it unless, say, one hundred members would subscribe. The price per copy would have to be fixed at 6s. to members, and 10s. to non-members. The Editor would be glad to hear from all members who would be willing to subscribe for a copy in the event of a General Index being published; only a limited number would be printed.

BALANCE

For the Year ended

£ s. d.	£ s. d.	
12 16 6		Balance from last year.
		<i>Receipts by present Hon. Secretary and remitted to Hon. Treasurer:</i>
158 10 0	317	Subscriptions, current.
2 0 0	4	„ arrear, @ 10/-.
1 10 0	4	„ „ @ 7/6.
3 10 0	7	„ advance.
11 5 0	90	Entrance Fees, current.
0 2 6	1	„ „ arrear.
		Donations: *
	£ s. d.	
	1 1 0	.. Mr. Newman.
	0 10 0	.. Rev. H. D. Astley.
	0 10 0	.. Mr. Meade-Waldo.
	0 10 0	.. Anon.
	0 2 6	.. Small sums.
	2 13 6	_____
	0 3 0	Sales.
	6 4 0	Private Advertisements.
185 18 0		_____
0 2 3½		Odd Balances from Publisher's Statements.

		<i>Publisher's Receipts.</i>
	56 17 7	Sales, volumes and separate numbers.
	4 12 7	Cases for binding.
	18 16 0	Trade Advertisements.
	1 5 4	Colouring Members' Plates.
81 11 6		_____
1 18 8		Publisher's Balance as per contra.
£282 6 11½		_____

* A Donation of 20/- received in September with the next year's Subscription will appear next year.—R.P.

SHEET

31st October, 1902.

	£	s.	d.
Half Tone Blocks, and printing 8 Plates	13	13	6
Lithographic Plates (4)—Mintern	6	6	0
„ „ (2)—Bale, Sons & Danielsson	4	10	0
Pitta Plate (tri-colour)	7	10	0
Colouring current and back Plates	39	15	4
Mr. Goodchild—6 Plates, stone work, and colouring patterns	9	19	6
Block for new cover	0	15	0
300 cases for binding	5	11	6
Buying back volumes and numbers	5	2	3
11,000 straw boards for packing	3	0	0
Packing and despatching Magazines; envelopes, and postages	31	1	9½
Binding; collating and arranging stock	5	8	0
Insurance of Stock (£100)	0	5	0
Publisher's commission on sales	8	3	2
Carriage and boxes from and to Brighton	1	13	3
Engraving 12 Medals	1	4	2
Printing Notices, &c. (Porter)	3	1	9
„ „ and Stationery (Moulton)	4	1	0
Printing Magazine (Moulton)	97	4	1
Advertisement in "Parrakeets"	0	9	6
Clerical Assistance (E. A. Porter)	4	3	6
18 Medals (Restall)	6	6	0
Postage—Hon. Secretary	5	0	0
„ Hon. Editor	1	10	3
„ Executive Committee, and cheque book	0	19	6
Paid Publisher Balance on his Statements for year	1	18	8
Publisher's remittances, as per contra	0	2	3½
Balance in hands of Hon. Treasurer	13	11	11½

 £282 6 11½

D. S-S. A. G. B. O. E. C.

*Examined and found correct,*BERNARD C. THOMASSET, *Auditor.*

The above Balance, £13 11s. 11½d. now

in my hands, 23/12/1902,

W. H. ST. QUINTIN, *Hon. Treasurer.*REGINALD PHILLIPPS, *Hon. Sec.*

POST MORTEM EXAMINATIONS.

 RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case.

No replies can be sent by post.

GREY PARROT. (Mr. C. P. Arthur). In owner's possession twelve months; lost its appetite. Gave it a teaspoonful of fluid magnesia to one ounce of water; would not feed so gave it Bovril, of which it drank three tinsful daily, but almost as soon as swallowed brought it up again; gave it three drops of chlorodyne in water to stop diarrhœa; fed on seed and water. [Enteritis was cause of death. Your Bovril treatment aggravated the disease and is quite unsuited to any granivorous bird. The chlorodyne was correct; had you commenced with it the chances of recovery would have been far greater. It was a male].

GRAY WAXBILL and COMBASSOU. (Dr. Creswell). Both found dead; seed hopper was clogged, and all other birds very hungry. [Birds died of exhaustion from want of food, neither one having a single grain in the crop].

PARADISE WHYDAH. (Hon. M. C. Hawke). Purchased a month ago; always seemed strong; found dead. [Bird died of apoplexy].

Hen PIN-TAILED NONPAREIL (Mr. W. C. Douglas). Purchased less than a week ago; it looked sick on arrival; found dead. [Concussion of the brain was cause of death. There was extravasated blood at anterior part of skull at base of beak. The clot was not sufficiently extensive to kill outright but it had occurred some days before death].

Two COMBASSOUS. (Rev. R. H. Wilmot). Only purchased a few days ago; both sitting on the floor when uncovered in the morning; one died at once, the second two hours after. [Enteritis was cause of death].

GOLDFINCH. (Dr. W. G. Creswell) Found dead. [Apoplexy].

GOULDIAN FINCH, hen. (Mr. N. B. Roberts). [Acute congestion of liver, which had ruptured].

RUFIOUS-NECKED WEAVER. (Mr. W. Tomes). Has not seemed to moult well; it continually opened its beak and shook its head. [Your bird

died of starvation, not being able to take sufficient nourishment owing to a diphtheric deposit in the mouth and throat, involving the base of tongue].

PAIR PIN-TAILED NONPAREILS. (Mr. W. H. Foster). Were sent by train. [Concussion of brain in both cases].

WHYDAH. (Rev. R. H. Wilmot). Seemed very ill this morning and died soon after. Can I give the others anything in their drinking water? [Enteritis was the cause of death. All birds that have been in contact (as you say a fortnight) should be kept in one cage and the cage isolated. I cannot suggest any treatment further than scrupulous cleanliness: remove all excrement at least once daily].

BLACK-HEADED GOULDIAN, CORDON BLEU, WEAVER, hen BUDGERIGAR (Mr. Mathias). [Gouldian, extensive disease of the liver, bird much emaciated, has fed very little for some time: Cordon Bleu, apoplexy: Weaver, tuberculosis of liver: hen Budgerigar, fatty degeneration of liver].

SCARLET TANAGER. (Mr. Cuthbertson). Has not been well since I had it first; found dead. [Pneumonia was cause of death].

ZEBRA FINCH. (Mr. L. W. Horton). It had been quite well until yesterday, when it appeared to faint and fell off the perch and remained very quiet all day; died this morning. [Apoplexy was the cause of death].

GREY WAXBILL and AVADAVAT. (Mr. M. E. Griffiths). These, together with several other small foreigners, were found dead. The birds were given some green food which was left in aviary over night and got frosted, which I thought might have caused it. [Birds both died of enteritis: the frosted green food would quite account for it].

MUSKY LORIKEET. (Mr. Castle-Sloane). Found dead. [Apoplexy. These birds should not be fed on seed, as fits are almost sure to follow such unnatural feeding. I have kept many varieties of Lorikeets in perfect health with bread and condensed milk made with boiling water, and whatever fruit may be in season].

HEN NONPAREIL. (Mr. Douglas). The bird seemed weak on the wing when purchased. [Congestion of the liver was cause of death. You do not state what food it has received: it might be caused by some error in diet, but I should think it had been affected for some time].

VIRGINIAN NIGHTINGALE, cock. (Mr. F. G. Hindle). Bird died yesterday in an open aviary; it had plenty of food and shelter, with a large heated compartment to resort to in cold weather. [Your bird died of enteritis. I am no believer in the warm compartment, as variations of temperature frequently prove fatal. Mine are in an open aviary in all weathers, and I have never lost one yet. You do not mention the food, nor whether they have green food, etc.].

SWAINSON'S LORIKEET. (Mrs. A. K. Connell). Seemed in perfect health yesterday. [Your bird was much emaciated, and shows evidence of long-standing tubercular disease; the liver and mesenteric glands were much affected. Syncope was the cause of death. It was a female].

TWO BUDGERIGARS. (Rev. C. J. Berkeley). [One very fat indeed, died of apoplexy; the other must have shown signs of ill health although, perhaps, you did not notice it. The lump you refer to was distended crop (crop bound) which caused its death].

RUSS'S WEAVER. (Mrs. E. W. Robertson). [Your bird suffered from tuberculosis of the liver, which was of long standing].

PEKIN ROBIN. (Mr. H. W. Mathias). Found dead. [Acute pneumonia was cause of death].

ARTHUR GILL.



THE BALEARIC CROWNED CRANE.

Baie & Danielsson, Ltd. imp

Balearica pavonina.

From a living male in the possession
of Mrs Octavia Gregory.

Avicultural Magazine,

BEING THE JOURNAL OF THE

AVICULTURAL SOCIETY.

New Series.—VOL. I.—NO. 5.—*All rights reserved.*

MARCH, 1903.

THE CROWNED CRANE.

Balcarica pavonina.

By Mrs. GREGORY.

My Crowned Crane was brought from the West Coast of Africa (Nigeria) two years before I purchased him. During those two years he was kept in a wired-in run five yards square!! When he came to me his spirit for a time seemed broken, and he did not understand or appreciate being let loose in a garden to wander about as he liked. Instead, he would remain standing close to wire or fences, as if he liked to feel sheltered and protected. After some weeks he began to improve, to walk about more and enjoy himself, and finally to flap his wings, bow grotesquely, and indulge in eccentric dances with a pair of Demoiselle Cranes.

He is an extremely gentle bird, and obediently walks before me into his house when it begins to get dusk. There he sleeps *squatting down* on a bed of straw or dried bracken. I do not know if this habit is peculiar to the Crowned species, as usually Cranes sleep standing on one leg.

In the morning, about half-past seven, the Demoiselles walk up a little passage leading to his house, exactly as if they were going to call him, for in a few moments the Crowned Crane walks slowly out, stretching his long neck forward (in a manner which always makes me think of a Giraffe), and follows them with wings outspread.

I notice that he is much more of a grain eater than they; occasionally he will eat a small snail, but he is indifferent to worms and slugs, and hunts very little after flies, grubs, &c.

Mr. Grönvold's exquisite plates are so life-like that there is no need for much description of this bird's colouring. He is taller and handsomer than the two Cape Crowned (*B. regulorum*) hens which I saw in the Zoo lately; his neck is longer, much darker in colour, and more graceful. The face markings differ considerably in the two species; in *Regulorum* the cheeks are white, except in a small space at the upper part, and the wattles are long and pendulous; while in *B. pavonina* the white and pink patches on the cheeks are almost equally divided, and the wattles (under the chin only) are so tiny as scarcely to be seen unless looked for.

[The concluding part of this paper, and an enlarged coloured figure of the head only of *Balearica pavonina* showing clearly its distinctive markings, will appear in the next number of this journal.—ED.]

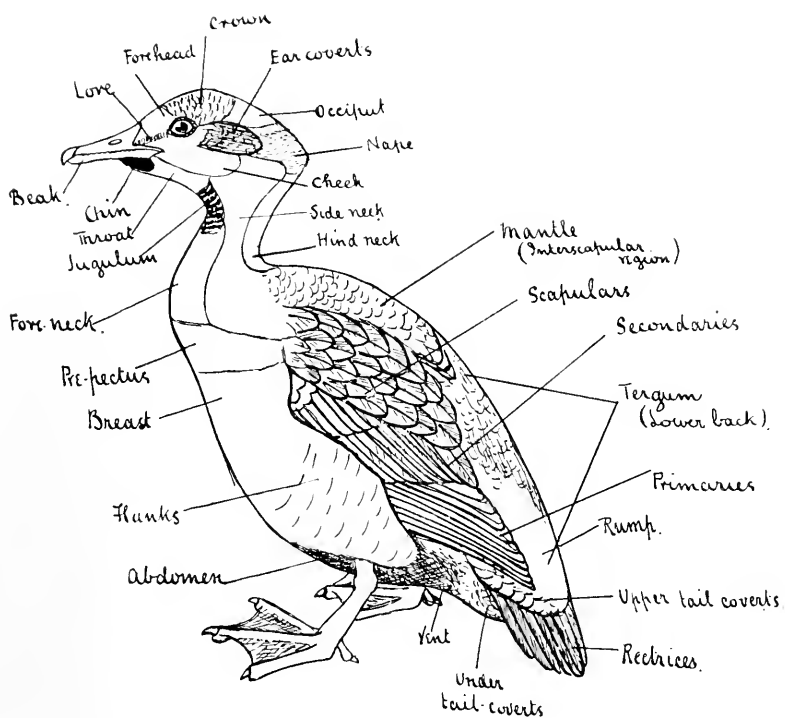
ON THE TOPOGRAPHY OF A BIRD.

By W. P. PYCRAFT, M.B.O.U., &c.

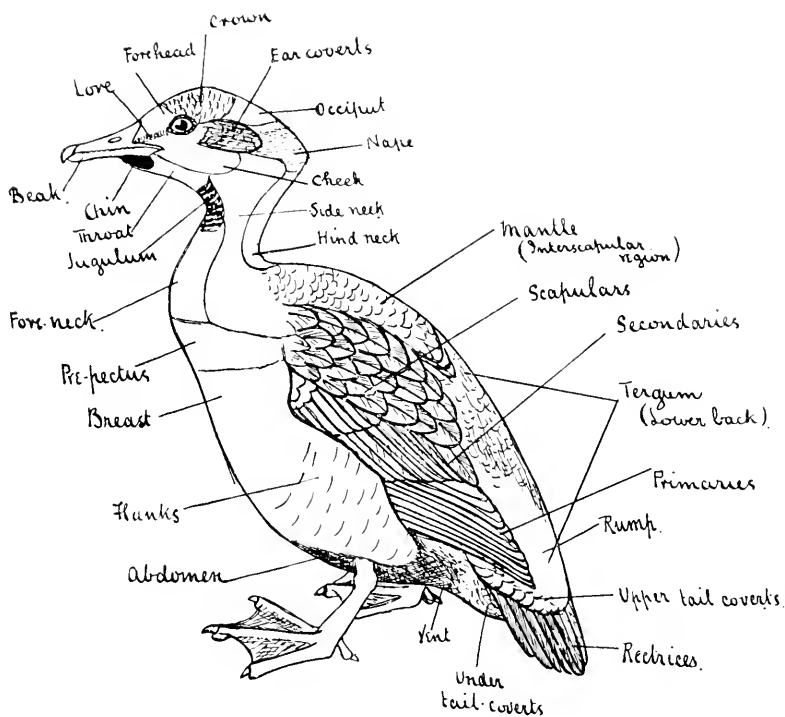
In writing the description of a bird it is found expedient, where a varied pattern of coloration has to be described, to locate the variously coloured areas of the body by distinct names. At the request of some of our readers these areas have been mapped out, and will be found in the accompanying chart (Plate 1).

The description of the plumage completed, many other points require attention that are but too frequently neglected, or slurred over. One of the most important of these is the colour of the soft parts—that is of the iris, the eyelids, beak, inside of the mouth, and the feet.

With regard to measurement, it is not sufficient to give the total length from the beak to the tip of the tail. The expanse of the wings stretched to their fullest should be given, as well as the distance from the tip of the *closed* wing (*a*) to the crown of the head, and (*b*) to the tip of the tail. In making skins from freshly killed birds careful attention should be paid to the preservation of these measurements. In a series of skins of the same species recently examined by the writer, some had



PYCRAFT ON THE TOPOGRAPHY OF A BIRD
Plate I.



PYCRRAFT ON THE TOPOGRAPHY OF A BIRD

Plate I.

the wings projecting nearly an inch beyond the tip of the tail, others had the tail projecting as much beyond the tip of the wings. Few authors appear to take these measurements into account when describing a bird.

After measurements should follow the enumeration of the remiges, or flight feathers, counting first the number of primaries, then of the secondaries. Their shape should next be noted, and the relative length of the primaries. It is often customary to express the relative lengths by what is known as the wing formula, merely writing the number of the feathers in order from the longest, the first primary being the outermost, thus: 4-3-2-5-1-6-7-8.

In the normal wing there are eleven primaries, but the number varies. In the Carinatae (*i.e.*, all birds except the Ostrich, Rhea, Cassowaries, Emus and Apteryx) there are never more than twelve, and never fewer than nine. Only certain Storks, and Grebes have twelve primaries. The length of the innermost quill should be especially noted. Often it is reduced so as to be with difficulty distinguished from its covert, than which it is often smaller, as in the so-called nine-primaried Passeres. When reduced to the size of, or less than its covert, it is called a "*remicle*."

In describing the secondary feathers the length of the inner quills should be noted. They may be either conspicuously short, or long. When very long, as in Wagtails and Pipits and certain Ducks for example, they should be described as elongated inner secondaries, *not* as *tertiaries* or *tertials*, as is so often done. This is a gross error based on ignorance of the meaning of these terms.

After the number of the quills or remiges has been counted, and their shape described, the wing should next be examined to see whether it is "*diastataxic*" or "*eutaxic*." It is *diastataxic* when the fifth pair of major coverts (Plate II) lack a quill between them. When every pair of major coverts embraces a quill between them the wing is said to be *eutaxic*.

The overlap of the covert feathers of the wing, and the number of rows of minor coverts should, when possible, also be

recorded. These coverts are said to have a *proximal* overlap, when the free edge of the covert is that turned towards the body in the outstretched wing, and a *distal* overlap when the edge is turned away from the body. The major coverts *always* have a distal overlap. There is never more than one row of major, or median coverts, there may be several rows of minor coverts, or these may be wanting. The terms "greater," "middle," and "lesser" coverts are vague, and should be avoided.

The presence of claws in the wing should also be looked for. One is commonly found on the thumb.

The under surface of the wing often presents features worthy of record. Such as the length and number of rows of minor coverts, and the pattern of the long "*axillary*" feathers, such as occur in the Snipe for example.

After the wing, the tail should be described, record being made of the number and shape of the tail feathers, and the presence or absence of an oil gland, and whether this is tufted or not.

Much helpful information would be gained if a practice were made of recording the extent, nature, and colour of the downy underclothing when this exists. For example, the Bustards have a vivid pink down, which fades soon after death. Other birds develop tufts of a remarkable form of down known as "powder-down." This may form huge patches on the breast and thighs, as in Herons and Bitterns, or be scattered over the body as in certain Hawks and Parrots.

Finally, the horny parts must be described. These include the sheaths of the beak, and the scaly envelope of the feet. The beak sheath is often compound, that is, formed of several distinct elements (Plate III). More often these sheaths—for the upper and lower jaws—are each composed of a single piece, and are then said to be "simple." They may be deeply grooved, or their edges may be toothed as in Shrikes or birds of prey, or serrated as in Gannets or Mergansers. The nature of these "teeth" and serration should be accurately described. The form of the "file" on the under surface of the tip of the Parrot's beak is a character of some importance.

Careful attention must be paid to the form of the nostrils. In some birds, as in the New World Vultures, these are pierced, and are then said to be *perforate*; when the nostrils of the two sides are separated by a partition they are said to be *imperforate*. Often this aperture is guarded by a scale or *operculum*. In some birds, as in Gannets and Cormorants the nostrils are wanting. The length and shape of the beak will, of course, also be noted.

The legs and toes are generally encased in a horny sheath, the *podotheca*. When this sheath is divided into a number of small pieces it is said to be *schizothecal*. In most cases these pieces take the form of moderately large shields, when the sheath is said to be *scutellate*; when the shields are small and octagonal in shape, *reticulate*. Sometimes the back of the tarso-metatarsus or *planta* is invested in a pair of plates meeting one another in the middle line; this arrangement is known as *lamini-plantar*. This character is a conspicuous feature in the subdivision of the Passeres. A still further fusion of plates, resulting in the formation of a continuous sheath along the front of the leg, or *acrotarsium*, results in what is called a *holothecal podotheca*, e. g. Robin. Generally it will be found this sheath is composed of scales of various kinds; thus the lower portion of the acrotarsium may be scutellate, the upper portion reticulate; similarly the *planta* may be clothed partly in scutellæ, partly in reticulated plates.

Sometimes these scales give place to a thin skin marked with fine lines as in the Duck; the sheath is then said to be cancellated.

In certain birds of prey, Owls and Grouse, the scaly covering is replaced by feathers, which may even clothe the "soles" of the feet.

The under surface of the toes in birds of prey have large fleshy tubercles at the joints; these are known as *tylari*.

The form of the claws should be carefully noted. Often the claw of the middle toe has a comb-like edge, when it is said to be pectinated or serrated.

The general form of the foot varies greatly. Normally

four toes are present, three of which are turned forwards, and one, the hallux, or great toe, backwards. When all the toes are free the foot is said to be *eleutherodactyle*. Sometimes, as in Coots, and Waterhens, and Grebes, the sides of the toes are fringed with a series of folds or lobes, when they are said to be *lobed*. The Ducks, Gulls, and Petrels have a *palmated* or webbed foot, that is to say, the front toes are connected by a web. In the Gannets and Cormorants and their allies, *all* the toes are thus connected, hence the foot is *totipalmate*. In some birds the front toes are half-webbed, or *semi-palmate*, e.g. *Anseranas*. The foot is said to be *pamprodactyle* when all the toes are turned forwards, as in the Swifts; *zygodactyle* when the first and fourth are turned backwards, as in Parrots and Woodpeckers and Cuckoos; *heterodactyle* when the outer or fourth toe is reversible, as in the Owls, Osprey, and some diurnal birds of prey. The Kingfisher, Bee-eaters and some others have a *syndactyle* foot, that is to say, the three front toes are closely bound together throughout the greater part of their length.

In conclusion, I would remark that the technical terms cannot be too emphatically condemned in the descriptions intended for the perusal of the general reader; on the other hand, their adoption in purely scientific treatises is not only thoroughly justified but absolutely necessary. By their means we are enabled, without circumlocution, to state tersely and precisely what are the distinguishing characteristics of the bird we are describing.

GLOSSARY.

Abdomen	..	the belly, from the end of the sternum to the under tail coverts.
Acrodactylum	..	the upper surface of the toes.
Acropodium	..	" " "
Acrotarsium	..	the anterior surface of the tarso-metatarsus.
Alar-bar	..	a bar across the wing.
Ala-spuria	..	the bastard-wing, or quills borne by the thumb.
Alula	..	see <i>ala-spuria</i> .
Anus	..	the external aperture of the cloaca, or gut.
Axillary feathers		the long feathers of the under surface of the wing in the region of the axillar.

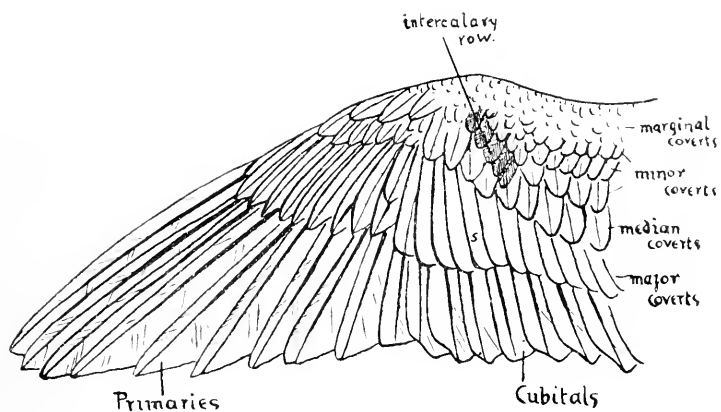


FIG. 1.

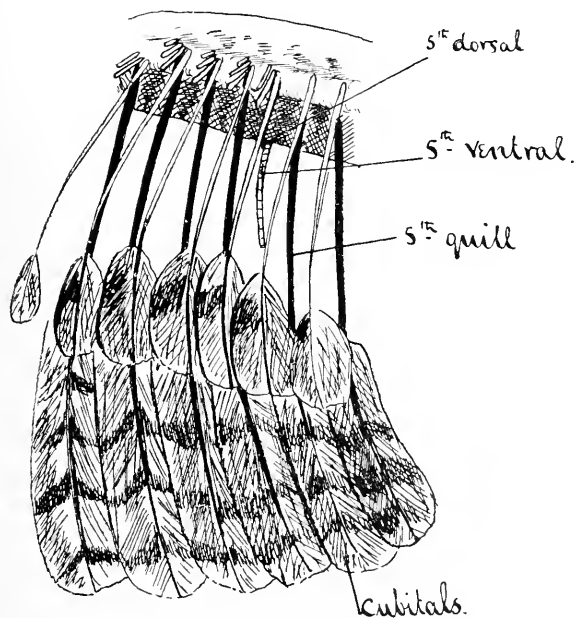


FIG. 2.

PYCRAFT ON THE TOPOGRAPHY OF A BIRD.

Plate II.

Breast	.. the region of the body covering the sternum.
Cere	.. the soft, often brightly coloured skin at the base of the beak (Accipitres).
Cervix	.. the neck.
Cheek	.. the side of the face below the eye and ear coverts.
Chest	.. applied to the region immediately in front of the breast.
Chin	.. the inter-ranal region.
Crissum	.. the region around the "anus," sometimes applied to the under tail coverts.
Crown	.. see vertex.
Cubitals	.. generally and better known as secondaries.
Dactylothea	.. the horny sheath of the toes.
Dertrum	.. the tip of the upper jaw when distinct from the base (Plovers).
Dorsal	.. pertaining to the back.
Ear-coverts	.. the elongated feathers covering the aperture of the ear.
Eleutherodactyle	having all the toes free.
Flank-feathers	.. the elongated feathers of the sides covering the wings when at rest.
Forehead	.. the region between the base of the beak and the crown.
Foreneck	.. the region between the jugulum and the "chest."
Gonys	.. the fused edges of the lower jaw, corresponding to the culmen.
Hackles	.. elongated neck feathers (Gallus, Nicobar Pigeon).
Heterodactyle	.. the outer toe reversible.
Hindneck	.. the back of the neck from nape to interscapular region.
Hypopteron	.. see axillary feathers.
Interscapulars	.. the feathers lying between the scapulars.
Iris	.. the coloured portion of the eye.
Jugulum	.. throat.
Lores	.. the space between the bill and the eyes.
Mandible	.. the lower jaw.
Mantle	.. interscapulars.
Maxilla	.. a term commonly applied to the upper jaw.
Mentum	.. the chin, the space between the lower jaws (inter-ranal space).
Mesorhinum	.. the culmen of the beak between the nostrils.
Nape	.. the base of the skull where it joins the neck.
Nares	.. the external nostrils.
Notæum	.. the back from the base of the neck to the tail.
Occiput	.. the back of the head, immediately above the nape.
Oil-gland	.. the gland at the root of the tail.

Operculum	.. the horny shield covering the nostrils.
Pallium	.. (see Mantle).
Pamprodactyle	.. all the toes turned forwards (Swifts).
Paranotum	.. the side of the sheath of the upper jaw.
Parapteron	.. the long feathers of the upper surface of the wing and lying between the scapulars and secondaries.
Pileus	.. the upper part of the head.
Planta	.. the hinder portion of the sheath (podotheca) covering the tarso-metatarsus.
Podarthrum	.. the junction of the toes with the tarso-metatarsus.
Podium	.. the toes taken together.
Podotheca	.. the horny sheath covering the lower portion of the legs and toes.
Pollex	.. the thumb, bears the ala-spurea or bastard wing.
Primaries	.. the large quill-feathers of the hand.
Pterna	.. the end of the tarso-metatarsus from which the toes extend.
Pycnaspidean	.. having the <i>planta</i> encased in small round scales.
Rectrices	.. the tail-feathers.
Remiges	.. the large flight feathers of the wing.
Rhamphotheca	.. the horny sheath of the beak.
Rhizonychium	.. the last joint of the toe bearing the claw.
Rictus	.. the region around the gape.
Rostrum	.. the beak.
Scapulars	.. the long stiff feathers borne on the humerus, covering the wing when closed. They have nothing to do with the shoulder blade as the name implies.
Secondaries	.. the quill feathers or <i>remiges</i> of the fore-arm.
Speculum	.. the lightly coloured patch across the folded <i>secondaries</i> in ducks.
Syndactyle	.. having the three front toes bound together (Kingfishers).
Tarso-metatarsus	see tarsus.
Tarsus	.. the scale-covered portion of the foot of a bird, commonly called the "leg."
Taxaspidean	.. correctly, the tarso-metatarsus, having the <i>planta</i> encased in a regular series of scales.
Tergum	.. the lower portion of the back, above the pelvis.
Tibia	.. the tibio-tarsus, the segment of the hind limb immediately above the tarso-metatarsus.
Tomium	.. the cutting edge of the beak.
Tylari	.. the bulbous swellings on the under surface of the toes in Accipitres.
Uropygium	.. see oil gland.

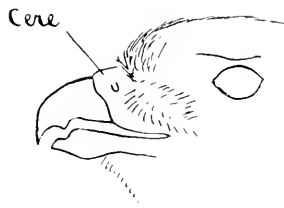


FIG. 1.

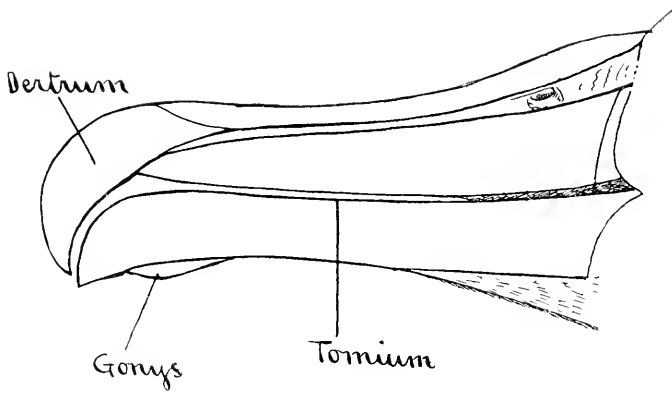


FIG. 2.

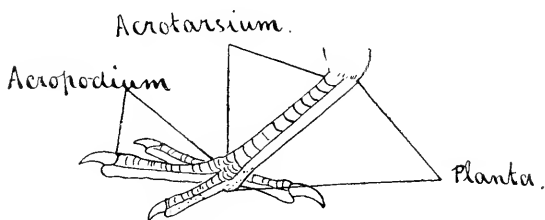


FIG. 3.

PYCRRAFT ON THE TOPOGRAPHY OF A BIRD.

Plate III.



Venter	.. the belly.
Vertex	.. the crown of the head.
Vibrissæ	.. bristles surrounding the gape.
Zygodactyle	.. yoke-footed: having two toes in front and two behind (Parrots).

EXPLANATION OF PLATES.

Plate I.

Diagram illustrating the Topography of a Bird.

Plate II.

Fig. 1. Upper surface wing of a Little Stint (*Tringa minuta*) to show (a) the difference between distal and proximal overlap (the former shown by the major, and the latter by the median coverts), and (b) the "faulting" which results in the formation of the intercalary row in the majority of birds having diastataxic wings.

Fig. 2. Upper surface of a portion of the wing of an Owl, to show the diastataxic condition—the absence of a quill between the fifth pair of major coverts. The quills or remiges are heavily shaded in black.

Plate III.

Fig. 1. Head of an Accipitrine bird to show the "tooth" on the tomium or cutting edge of the beak, and the "cere" or soft skin at the base of the beak. The *Rhamphotheca* or beak sheath is simple.

Fig. 2. Beak of an Albatross to show the compound condition of the *Rhamphotheca* or beak sheath, which is composed of several distinct elements.

Fig 3. Foot of a bird to show the schizothecal podotheca wherein the horny investment of the foot is made up of several separate pieces.

NOTES ON A PRIVATE COLLECTION OF
LIVING BIRDS DURING 1900-02.

(With illustrations by H. GRÖNVOLD from sketches by the Author).

By GRAHAM RENSCHAW, M.B.

In spite of the ever increasing numbers of those who take an active interest in natural history, opportunities of studying rare foreign birds in confinement are by no means so frequent as might be wished. The difficulty of obtaining many species owing to the remoteness of their haunts, together with the problem of transport (since the bird during its long journey must be fed daily and with the right sort of food) constitutes a serious impediment to progress in this very interesting department of zoology, whilst the high prices often demanded for rare birds are an additional hindrance to extensive aviculture. Hence most of the rarer exotic birds which are brought to Europe appear almost exclusively in the splendid aviaries of the various Zoological Gardens, and hardly come under the notice of the average amateur at all. As scarcely anything appears to have been hitherto recorded concerning the habits of many species in captivity, I have much pleasure in contributing the following original observations on various foreign birds now, or lately, living in my own collection.

The species are as follows:

PASSERES.

Garrulax sinensis (CHINESE JAY THRUSH).

The Chinese Jay Thrush has many virtues to recommend him: his cheerful, wide-awake, alert bearing, wins the bystander's interest at once, and this intelligent demeanour is enhanced by a considerable capacity for being tamed. Although but soberly clad in hues of grey and greenish brown, with a white patch on each cheek, the sturdy figure of the Jay Thrush is very pleasing to the eye; some of these birds are also pleasing to the ear, since they can pipe with some ability, although my own specimen did but little in this direction. Ever jolly, self-reliant, and enterprising, there is hardly anything that the Jay Thrush will

refuse to eat, so that his owner need fear no breakdown of the commissariat. Unfortunately, his enquiring disposition and omnivorous appetite render this bird a dangerous companion for smaller birds, whose thin skulls would stand little chance against the hammerlike strokes of his closed bill. The Jay Thrush may, however, be safely allowed in a mixed aviary, provided that it contain no weaker birds for him to bully; this aviary may with advantage have an outdoor compartment, for so robust an inmate requires no coddling, and visitors to the Amsterdam Zoological Gardens may recollect the fine example of *Garrulax sinensis* which was thriving out of doors during the past (so-called) summer. The Chinese Jay Thrush has of late years been frequently imported into this country, and well deserves the attention of amateurs, to whom it appears to be practically unknown.* †

Lamprotornis caudatus (LONG-TAILED GLOSSY STARLING).

The *Eulabetidæ*, or Glossy Starlings, are pre-eminent amongst the feathered tribe in the incomparable beauty of their plumage, the lovely metallic hues of which recall the splendours of their near relations, the Birds of Paradise. There are several species of Long-tailed Starling: the individual I now possess has golden-yellow eyes, and much of the plumage is magnificent rich violet, resembling the glorious hues seen on the wings of the Twelve-wired Bird of Paradise (*Seleucides nigricans*). Long-tailed Starlings are remarkably Corvine in gait and manner, and much resemble Magpies both in their demeanour and in their odd partiality for glittering objects, whilst the likeness is increased by their long tails. These Starlings soon become tame: my own bird will fly down to take grapes or mealworms from the hand, but it is capricious at times, for if not very hungry he will not accept a grape unless bit by bit; should a whole grape be offered by his dutiful owner the bird takes it in a *blasé* sort of way, holds it in his beak for a moment, and then contemptuously

* I have had four specimens and found them to vary greatly. One was a superb whistler.—R. P.

† I think Dr. Renshaw is mistaken in this assumption: the bird was tolerably well-known when I first began to take up aviculture (some twenty-one years ago). The name is not a good one; as the Collared Jay-Thrush, a rarer bird undoubtedly, is also a Chinese species.—A. G. B.

lets it drop on the floor. When hungry, this Starling, on seizing the grape, flies to the ground with it, and by dint of vigorously shaking it and beating it against the ground, soon wrenches it into a shapeless mass, which is then swallowed. He has various ways of amusing himself. A piece of talc, which had fallen out of the front of a small stove, was recently a great treasure, worthy of being carried about in his beak: but his great accomplishment is solo singing. Closely caged, the Glossy Starling is silent enough; but turned loose in an aviary these birds will perch in the highest attainable situation, and make a brave attempt at a song, the melody (?) being remarkably limited in quantity, whilst the noise is prodigious, the bird shrieking and shouting at the top of its voice in a most disagreeable manner. During special vocal efforts the Long-tailed Starling half expands its wings and allows them to droop in a characteristic fashion. As regards its treatment of other species, I have kept my own specimen in a mixed aviary, containing many tiny birds, without murder being done, but I understand that other ornithologists have not been so fortunate.

Lamprocolius chalybeus (GREEN GLOSSY STARLING).

The Short-tailed Glossy Starlings are as beautiful as their long-tailed brethren, but whereas the latter resemble Magpies in their deportment, the former are more like Jackdaws in their sharp inquisitive scrutiny of various objects, and in their quick business-like gait. The eyes of the Green Glossy Starling are rich golden yellow; the plumage is changeable steely green, diversified with a dark patch on each ear and a few rounded spots on the wings. Like its long-tailed congeners this Starling becomes very tame in confinement: the one I had last year would call as soon as he heard my footsteps in the morning, and would come running up to the wires to be fed. He would also readily take various dainties from the hands of a complete stranger. The bird shares the usual Starling ambition to become a singer, and succeeds in producing a discordant but vigorously rendered series of noises, perhaps, however, more agreeable than those of the preceding species. The Green Glossy Starling may be fed on potatoes, damped sponge cake, bread-crumbs, figs, and

dried ants' eggs: at meal-time my bird was inclined to be a bully, driving off the other birds by jumping on them in no half-hearted fashion, a proceeding which seemed to cause them considerable inconvenience. Although I have seen it stated in print that Glossy Starlings, though becoming very tame, are but short lived in confinement. I have found them to be hardy enough, and repeated inspection of the splendid series of these birds—consisting of *Lamprotornis aeneus**, *Lamprocolius chalybeus*, *L. nitens*, and *L. auratus*†—which has been maintained at the Amsterdam Zoological Gardens during 1899-1902, has convinced me that, with proper care, they will do at least as well as any other birds brought from sunny Africa to colder climates. All the Glossy Starlings delight to bask in the sun: they then preen their resplendent plumage and endeavour to sing. Young birds are duller in hue than their seniors, the gorgeous metallic tints being in them largely represented by lustreless greyish-brown.

Icterus jamacaii (BRAZILIAN HANGNEST).

This handsome black-yellow bird is to be seen in every European Zoo. As regards external characters it is remarkable for its long and sharply-pointed beak, for the curious area of naked blue skin adjoining the eye, and for the large powerful feet. The Hangnest is carnivorous‡, and will promptly kill any small bird introduced into its cage. Several times small species such as Mannikins, that had escaped from neighbouring cages, were seized by my Hangnest, which savagely gripped them by the leg and endeavoured to drag them through the wires. I have known a Cordon Bleu (*Estrilda phænicotis*) to have one leg almost completely severed from the body by this mode of attack. In addition to animal food, *Icterus jamacaii* will also take fruit. The bird has a curious habit, when feeding on a fig or similar dainty, of thrusting its closed beak into the fruit, and then by separating the mandibles with a compass-like action,

* *L. caudatus*, described above.—R. P.

† *L. purpureus*, the Purple-headed Glossy-Starling: I have found these to be good liners in the aviary, but they must not be over-exposed to cold and cold wet.—R. P.

‡ Spiteful and cruel, but not carnivorous; they are rather insectivorous.—R. P.

exposing the interior to view. The Hangnest will occasionally pipe in confinement. Several of these birds kept together in a very large cage make a fine show, and will agree together, owing to mutual respect (inspired by each others beaks and claws) or, perhaps on the principle of "honour among thieves." Other birds must be introduced with caution, since even so bulky a species as the Scarlet Tanager (*Pyrranga rubra*) is by no means safe from attack. Brazilian Hangnests vary in the intensity of their yellow colouring: in some individuals this part of the plumage tends to a citron hue, in others it approaches orange.

Molothrus bonariensis (SILKY COWBIRD).

This South American species is annually imported into England in considerable numbers, and, unlike many exotic birds, can be usually purchased at a very low figure: a handsome male which I now possess was bought in Liverpool for under four shillings. Young birds and females are more or less brownish: but the adult cock is of a magnificent violet, and is frequently sold as a "Glossy Starling." Unlike those fowls, however, the Silky Cowbird sings very melodiously: he is not at all dangerous to small birds; he requires but the simplest diet, such as millet or other bird seed; and he is not given to violently jumping upon any weaker comrade who may have caused his displeasure. In addition to these virtues the Cowbird's character exhibits a very pleasing trait—a kindly disposition to companions in misfortune. I remember how, when one of my Glossy Starlings was afflicted with what proved to be its last illness, a Cowbird would come and stand by the sufferer in silence, its whole bearing eloquent of sympathetic interest. My present birds are males, and show great preference for each other's company: and although at night these bachelors will bicker for roosting places their quarrels are conducted in a series of melodious twitterings, and they threaten each other rather than fight. The Silky Cowbird is quite hardy, and requires but little protection even in mid-winter.*

* Unfortunately it is exceptional for these Cowbirds to sing in captivity: I have had two which lived long but never sang a note.—A. G. B.

Pyrranga rubra (SCARLET TANAGER).*

This brilliant bird is gaily decked in summer in a garment of flaming scarlet with wings and tail of a jet black: in winter the scarlet is replaced by dingy yellow. A cock bird in my collection during 1901 was fed on fruit, ants' eggs, and sponge cake. He used to hop to and fro, uttering his curious chirp as he alighted on his perch, and was of a self-reliant disposition, for, on the Glossy Starling attempting to bully him at meal-times, he promptly turned on the aggressor, whom he menaced to such purpose that his adversary never repeated the experiment. The Hangnest was, however, too much for him, the Tanager being pulled over on to his back, and receiving repeated stabs from his enemy's dagger-like bill. Since this occurrence the Tanager continued to feed well, but gradually became less lively and declining daily in health died several weeks after this encounter. He was much emaciated, having probably received some internal injury. This bird was peaceable enough with his companions if let alone, only fighting in self defence. I cordially recommend so lovely a species to the notice of amateurs.

PICARIÆ.*Hierococcyx varius* (INDIAN HAWK CUCKOO).

These Asiatic Cuckoos, with their curved beaks, long wings and tails and barred plumage, curiously resemble Accipitrine birds, a likeness which is, however, at once dispelled by a glance at the characteristic zygodactyle foot. My Cuckoo was the tamest bird I ever had, and would fly on to my hat or hand expecting to be fed. He disposed of a considerable quantity of grapes, which were swallowed whole; if disturbed too soon after feeding he would frequently lighten himself by regurgitating a grape, which was allowed to drop on the floor. The bird was also very fond of mealworms. His disposition towards other birds was snappy and quarrelsome, every feather bristling up if another bird ventured to perch on the same branch as his highness, whilst any intruder he thought sufficiently weak-

This is not the Scarlet Tanager of the bird-trade, but the so-called 'Summer Tanager' of Latham (*Pyrranga aestiva* of the British Museum Cat. of Birds).—A. G. B.

mind was scared away by the wide opening of his feeble beak. Although feeding well and even voraciously, this Cuckoo was never very animated, except at meal-times, when he was always well to the front: he seldom ventured into the outdoor aviary (where he sometimes would sit listlessly on a branch) and I only once heard him calling. Perhaps the climate did not suit him, for although he took every care of his precious person by continually moping indoors, he was taken ill during the prevalence of some keen east winds, and died about twenty-four hours afterwards.

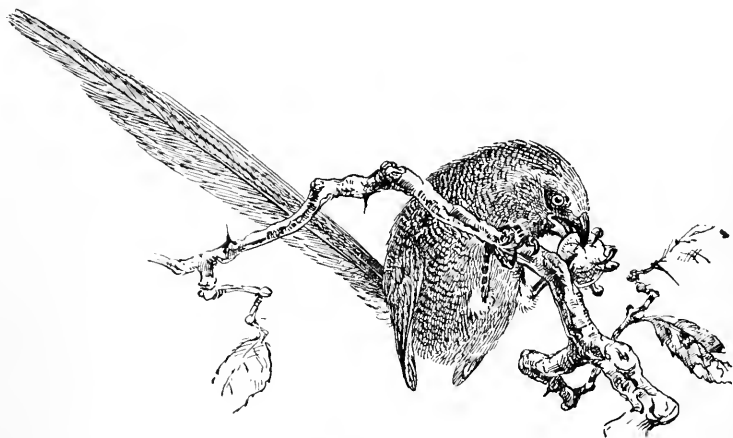
Colius striatus (STRIATED MOUSEBIRD).

It must be confessed that the Striated Mousebird is an ugly little creature in his dull brown plumage, but, nevertheless, this species makes an interesting pet. The beak is remarkable



A CHARACTERISTIC ATTITUDE OF *Colius striatus*.

for its Hawk-like upper mandible, which is of a deep blue-black colour contrasting sharply with that of the lower bill, which is ivory white. I am not sure that the Mousebird is content with the mere possession of an Accipitrine beak, at any rate my bird is under grave suspicion of having used it to some purpose, since he was found recently dragging about the dead and partly-devoured body of an Avadavat (*Estrilda amandava*). The head of the Mousebird is surmounted by a thin crest of wiry feathers, which can be raised or depressed at will. The flight of this species is short but rapid: when it settles on a tree (as remarked by Layard years ago) the bird alights on one of the lower branches and jerkily creeps upward into a higher situation. When creeping down a bush towards its food (I often suspend a bunch of



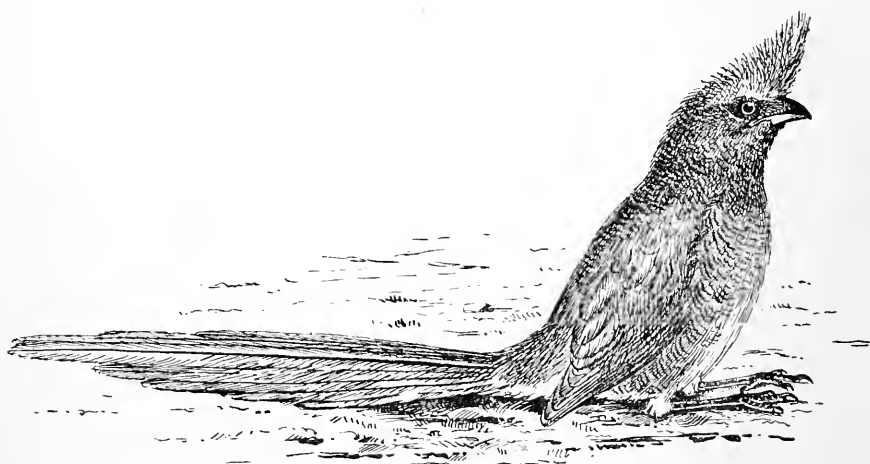
Colius striatus.

THE CREST IS INVARIABLY DEPRESSED DURING FEEDING.

grapes to a convenient twig in order to study this point) *Colius striatus*, instead of flitting along the branches as a Passerine bird would do, edges its way slowly down grasping *parallel* twigs instead of different portions of the *same* one. On reaching the fruit the Mousebird bites a piece out of it, and swallows it with a masticating action of the beak: it will often pick up a loose grape from the floor and fly away with it; on alighting, the grape is shifted from the beak to the foot, which grasps it in a singular, and almost monkey-like manner, while the bird solemnly pro-

ceeds to make a meal. When on the ground the Mousebird hops quickly along, the whole metatarsus touching the earth, and the long stiff tail dragging behind. This species sleeps in an extraordinary fashion, for, instead of roosting like ordinary birds, it lies prone on a convenient ledge or shelf, and looks as if dead or at the last gasp. The Striated Mousebird may be fed on ants' eggs, mealworms, grapes, apples, and pears; its note is a weak chirp, but it squeaks rapidly when much alarmed.

Although in poor condition when he arrived (owing apparently to an insufficient fare of cheap unripe fruit) my bird soon improved on a liberal diet of mealworms and grapes, the plumage becoming beautifully smooth and fine. Perhaps this



A CHARACTERISTIC ATTITUDE OF *Colius striatus*.

improvement in health led to the adoption of the luxurious tastes which eventually proved his destruction, for, during the moult, instead of sleeping on a perch or sill like an ordinary bird, this Sybarite began to intrude upon an African Jerboa-rat (*Dipus ægyptius*) which shared the aviary, and used to sleep in this animal's warm bed every night. The Jerboa began to take payment by stripping off the Mouse-bird's feathers, and we suppose one night accidentally overlay the Mouse-bird, for the unfortunate *Colius* was found apparently smothered, being in excellent condition and without external wound, but lifeless.

The Jerboa wasted no time in sentimental tears, but promptly plucked the body quite bare, except the wings; the plump, well-nourished condition of the Mouse-bird was thus plainly evident, as was also the weight and firmness of the body on being taken into the hand.

Anthracoceros convexus (TEMMINCK'S PIED HORNBILL).

All the specimens of this bird I have seen were sleepy-looking fowl, and the hen Hornbill, which I received in 1901, was no exception to the rule, sitting sluggishly on her perch for an hour at a time, and only descending to feed. On feeling the pangs of hunger she would utter a hoarse croak, and then, hopping off the perch and across the floor in a very ungainly fashion, would seize the food—grapes, chopped bananas, pieces of fish, and so on—swallowing great portions whole, and disposing of piece after piece in rapid succession. Live frogs were killed by a nip of the beak, and then the luckless victim was passed backwards and forwards in the bird's bill until crushed into a shapeless mass, which was then swallowed. Drowned mice were carefully dried before being devoured, the Hornbill rubbing the body on a branch in the most fastidious manner, pausing from time to time as if to test the dryness or otherwise of the dainty morsel by means of the tactile sensibility of the membrane lining the beak: the whole operation was a very solemn affair, conducted with due gravity and often occupying a full ten minutes. I once gave this Hornbill a small dead bird. She eyed it attentively, and then, as if suddenly comprehending what it was, quickly threw her wing over it to prevent its escape: the crushing and swallowing programme followed in due course. This Hornbill had a curious habit of shaking the feathers with a tremulous movement as if shivering: this habit has also been recorded of other picarian birds.

Coracias garrula (ROLLER.)

This lovely bird is only seen to advantage in a spacious aviary, where it can fly freely and expand its silvery cobalt wings, the full beauty of which can only be seen during flight. The Roller, although a well known bird, is apparently rare in

captivity, and the only example I have ever seen alive was the specimen which I recently secured for my collection. Soon after his arrival in the aviary this bird greatly distinguished himself by his voracity, seizing a huge piece of suet which he obstinately retained possession of, although a portion hung out of his beak, still unswallowed, hours after he had first annexed this *bonne bouche*. A full account of this beautiful bird in confinement would be a very interesting contribution to zoological science.*† This remark also applies to the great majority of the feathered tribe, many of whom are little known even in the districts which they inhabit, whilst others, although common enough in their own land, have, from various reasons, never hitherto been brought alive to Europe.

SOME NOTES ON THE CRYSTAL PALACE BIRD SHOW.

This exhibition, which opened on February 13 and closed five days later, contained some interesting and rare birds, though it must be admitted that there were not very many kinds with which the majority of aviculturists are not perfectly familiar. The show was held under the rules of the London and Provincial Ornithological Society, whose Committee are to be congratulated on the selection of experienced aviculturists for their Judges in the British and foreign sections on the present occasion.

The first of the foreign bird classes was devoted to Love-birds and Budgerigars, a pair of *Agapornis roseicollis* belonging to Mr. J. Storey taking the first prize.

In the class for other Parrakeets and Lorikeets a pair of Varied Lorikeets (*Ptilosclera versicolor*) owned by Mr. L. W. Hawkins were prominent, and well deserved the premier honours on account of their being the first of their kind exhibited in this country. They seemed to feel the situation keenly however. The only food provided for them consisted of preserved yolk of egg and honey, both of which appear to the writer to be

* See *Avic. Mag.* Vol. VII., p. 217.—ED.

† See also IV., pp. 103 and 121; V. pp. 46 and 182.—R.P.

unsuitable. I have found that these beautiful Lorikeets do very well indeed on a diet of sweetened milk sop, and ripe fruit such as sweet-water grapes, of which they are exceedingly fond. A nice Black-tailed Parrakeet (*Polytelis melanura*) was also shown here, as well as a good many common kinds such as Kings, Crimson-wings, Pennants, Rosellas, and the three commoner species of *Palæornis*.

There was little of special interest amongst the larger Parrots. A pair of Swainson's Lorikeets were exhibited in this class, and were *not* disqualified, both judge and exhibitor overlooking the fact that they should have been in the previous class.

The class for commoner foreign finches contained one curiously-marked White-headed Mannikin, in which the throat was entirely black; it might well have been taken for a hybrid between *Munia maja* and *M. atricapilla*, and as these two closely-allied forms appear to overlap one another's boundaries the possibility of hybridisation is by no means remote. I believe however it belonged to the rare form inhabiting Java, and known as *M. ferruginosa*.

The class for the rarer Waxbills, Grassfinches and Mannikins contained a bird that was a puzzle to a great many aviculturists, and which was probably the first of its species ever shown in this country. I took it to be a specimen of *Lagonosticta niveiguttata* from East Africa.* This was shown by Mr. L. W. Hawkins, and was rightly awarded the first prize. Other notable birds in this class were, a pair of Blue Waxbills (*Estrilda angolensis*), pairs of Ringed Finches (*Stictoptera annulosa*), Double-banded Finches (*S. bichenovii*), Rufous-tailed Finches (*Bathilda ruficauda*), Pin-tailed Nonpareils (*Erythrura prasina*), Red-faced and Aurora-finches (*Pytelia afra* and *P. phænicoptera*); Gouldian, Long-tailed, and Masked Grassfinches.

The next class was devoted to "Grosbeaks, True Finches, and Buntings," but contained little that was especially noteworthy. Two pairs of Olive Finches (*Phonipara lepida*), a hen

* Since the above was in type Mr. H. Goodchild has compared a water-colour drawing he made of this bird with the skins in the British Museum, and finds that my supposition is correct.—D. S.-S.

Cuba Finch (*P. canora*), and a pair of *Passer luteus* (the cock of which died during the show) were the most interesting exhibits. Two cock Black-headed Buntings (*Emberiza melanocephala*) were shown as a pair for the second time, and were again awarded a card by the Judge* (see Vol. VIII. p. 93). Surely the Judges at important shows like this ought to know the difference between the sexes of this very well-known European bird.

The class for Tanagers, Sugar-birds, Honey-eaters, *Zosterops*, and Bulbuls, was perhaps the most interesting in the show. Mr. L. W. Hawkins sent a Purple Sun-bird (*Arachnechthra zeylonica*) which the Judge considered should have been in another class, which is surely going too far. In a popular sense at any rate any member of the sub-family *Nectariniidæ* should be entitled to a place in this class. Here is a case of the Judge being hypercritical, whereas in another class we see the other Judge passing a pair of Swainson's Lorikeets in a class for the larger Parrots and Lories, when there was clearly another class provided for them. The Purple Sun-bird is an exceptionally difficult bird to keep in captivity, and all possible credit should be given to the owner for exhibiting it in such splendid condition. Mr. S. M. Townsend sent some rare and beautiful Tanagers, the first prize going to a Tricolor (*Calliste tricolor*), but I preferred his rarer Yellow Tanager (*C. flava*). Mr. J. A. Swan sent a fine specimen of the rare White-capped Tanager (*Stephanophorus leucocephalus*) from Argentina, and a good Blue Sugar-bird (*Dacnis cayana*). Mentioning the White-capped Tanager reminds me that there is now, living in the Zoological Gardens, a specimen of this species which has been there for nearly twenty years. There were two good specimens of *Chloropsis hardwickii*, and some of the commoner *C. aurifrons*. There were two species of *Zosterops*, the common *Z. simplex*, and a larger form which Mr. Fillmer tells me he believes is *Z. japonica*: the latter seems to have been imported somewhat freely of late.

The next class was devoted to all species that were not eligible for the other classes, and here, as usual, were some

* Not the same Judge as on the previous occasion.

decidedly rare birds. First came Mr. L. W. Hawkins' very fine Silver-eared Mesias (*Mesia argentauris*) beautifully shown, and in perfect condition. The same exhibitor sent a Blue-winged Siva (*Siva cyanooptera*), which was awarded third prize. Mr. Osbaldeston showed a fine Green-billed Toucan which obtained the second prize, and Mr. Townsend's Andaman Starling came fourth. A fine Red-headed Hangnest (*Amblyrhampus holose-riceus*) passed unnoticed by the Judge.

Space will not permit of dealing with the British birds, but mention must be made of an exceedingly beautiful albino, or rather lutilo, Yellow-hammer. It had pink eyes, and the entire plumage was of a pale canary-yellow.

D. S.-S.

THE QUAKER PARRAKEET AT LARGE.

A short note on an escaped specimen of *Myiopsittacus* building a nest in a thatch in the New Forest appeared in this Magazine for February, 1901, but a very much fuller account of this interesting Parrakeet, by Mr. W. F. Rawnsley, is published in the January number of the *Zoologist*. It appears that the bird was first caught, apparently in a somewhat injured state, in the heather of the open forest in August, 1899. It was then caged, but managed to escape in the following June, when it had fully recovered its powers of flight, and betook itself at once to a farm near by, where it fed with the chickens. In October, 1900, it commenced to weave a tunnel-shaped bower with twigs, on the thatched roof of the farm-house, close to a brick chimney-stack, in a position where shelter and warmth were secured. In December the direction of the entrance was changed, and the tunnel, which was about a yard in length, was used as a sleeping place by the bird every night throughout the winter. In the spring of the following year a second tunnel, parallel to the first, was constructed, but this was soon blocked up, and a third tunnel constructed above the second. The mouth of this was turned round so as to prevent the rain from the south-west blowing direct into the tunnel. In April, a new thatch was put on the roof, but care was taken not to interfere

with the Quaker's nest, and its activity increased with the advent of warm weather, "snipping off the twigs from a hawthorn hedge and carrying them in its beak, screeching as it flew, with a very quick beat of its thin-pointed wings, and with its pin-tail never spread. It worked most industriously, taking a long time to fix each twig, and weaving them together very neatly at the opening, which was about six inches across, and all the way along the tunnel inside. The outside twigs, though they all looked rather haphazard, were so interwoven that no wind ever displaced them.

"By May it had greatly enlarged the pile, and had brought it down and fastened it ingeniously to the elbow of the stack-pipe, which gave increased stability, but made a bend in the tunnel necessary. The whole structure was now seven or eight feet long, and nearly three feet across at the lower end, and with this the bird seemed content."

It was considered probable, from the bird's skill in nest-building, that it was a female, and thinking it a pity that it should not have a male, a second bird, supposed to be a male, was procured, and the original bird having been caught in its tunnel at night, the two were caged for a short time, and then both released together. The new one never offered any assistance in nest-building, though the original bird continued to add to the nest. So long as the hedges remained bare, the only nesting material used was the prickly hawthorn twigs, but when the hedges became green, the tops of the pea-sticks were used.

The new bird became mischievous, picking off the green apples, and so had to be captured and caged, and his mate had to share the same fate in case she should also have learnt this objectionable trick. Unfortunately a rat got into the cage and killed the new bird, and so all hope of successful breeding was at an end. The original bird was set free again, and lived until June, 1902, after which it was seen no more.

We sincerely hope that Mr. Rawnsley's very interesting experience with this nest-building Parrot will induce others who live in the country to try the experiment of releasing a pair or two of these birds and to let us know the result.

BIRD NOTES FROM THE ZOOLOGICAL GARDENS.

(Continued from page 145).

The following species were exhibited for the first time, between July and December, 1901:

JULY 5th.	2 Lories, <i>Eos</i> , sp. inc.	..	Moluccas.
„ 27th.	2 Pond-Herons, <i>Ardeola grayi</i> .	..	British India.
	1 Cattle-Egret, <i>Bubulcus coromandus</i> .	..	„ „
	1 White-bellied Drongo, <i>Dicrurus caerulescens</i> .	..	„ „
	1 Common Hawk-Cuckoo, <i>Hierococcyx varius</i> .	..	„ „
	2 Scarlet-backed Flower-Peckers, <i>Dicwm cruentatum</i> .	..	„ „
	2 Purple-rumped Sun-birds, <i>Arachnechthra zeylonica</i> .	..	„ „
„ 29th.	3 Andaman Teal, <i>Querquedula albigularis</i> .	..	India.
AUG. 22nd.	2 White-breasted Sea-Eagles, <i>Haliastur leucosternus</i> .	..	Australia.
„ 24th.	1 Blue-headed Rock-Thrush, <i>Petrophila cinclorhyncha</i> .	..	British India.
SEPT. 21st.	1 Fulvous-breasted Pied Woodpecker, <i>Dendrocopus macii</i> .	..	„ „
	2 Jungle Babblers, <i>Crateropus canorus</i> .	..	„ „
	1 Indian Cuckoo, <i>Cuculus micropterus</i> .	..	„ „
	1 Pied Crested Cuckoo, <i>Coccyzus jacobinus</i> .	..	„ „
	1 Crimson-breasted Barbet, <i>Xantholæma hæmatocephala</i> .	..	„ „
	1 Pied Ground-Thrush, <i>Geocichla wardi</i> .	..	„ „
„ 24th.	2 Malayan Wrinkled Hornbills, <i>Rhytidoceros undulatus</i> .	..	Malacca.
OCT. 22nd.	3 Lark Buntings, <i>Calamospiza bicolor</i> .	..	Picos., Texas.

13 out of the 19 species recorded above were presented by Mr. E. W. Harper, F.Z.S., M.B.O.U., making a total of 34 species new to the Society's collection presented by this gentleman in 1901.

The following birds were bred at the Gardens during 1901, and as will be seen, on referring to the list for 1900 (page 111), are more than double both in number and species:

- 2 Rosy-faced Love-birds, *Agapornis roseicollis*.
- 1 White Stork, *Ciconia alba*.
- 12 Rosy-billed Ducks, *Metopiana peposaca*.
- 6 Chilian Pintail, *Dafila spinicauda*.
- 6 Wild Ducks, *Anas boscas*.

- 5 Australian Wild Ducks, *A. superciliosa*.
- 5 Upland Geese, *Chloëphaga magellanica*.
- 7 Gadwall, *Chaulelasmus streperus*.
- 3 Summer Ducks, *Æx sponsa*.
- 20 Silver Pheasants, *Euplocamus nycthemerus*.
- 20 Common Pheasants, *Phasianus colchicus*.
- 5 Gold Pheasants, *Thaumalea picta*.
- 2 White Ibises, *Eudocimus albus*.
- 3 Glossy Ibises, *Plegadis falcinellus*.
- 1 Swinhoe's Pheasant, *Euplocamus swinhoei*.
- 2 Herring-Gulls, *Larus argentatus*.
- 5 Crested Pigeons, *Ocyphaps lophotes*.
- 2 Triangular-spotted Pigeons, *Columba guinea*.
- 2 Spotted Pigeons, *C. maculosa*.
- 2 Martinican Doves, *Zenaida aurita*.
- 2 Mountain Witch Ground-Doves, *Geotrygon cristata*.
- 4 Spot-billed Ducks, *Anas pæcilorhyncha*.

CORRESPONDENCE.

GREEN BULBULS (*Chloropsis*).

(*Extract from a letter addressed to the Honorary Secretary*).

SIR,—I do not quite agree with you *re* the Malabar Bulbul. I have had between seventy and eighty of these birds during the past year, and am confident that sixteen at least were not the Aurifrons. The blue formed a complete bib, and the black extended farther down the breast, the birds being at least an inch longer and deeper in green than Aurifrons.

I see you give the Blue-winged as *Chloropsis hodgsoni*. I always thought it was *C. hardwickii*, but have only Jerdon to go by. Aurifrons is known in Calcutta as the Goruckpore Flycatcher, Hardwickii as the Bareilly Flycatcher; and it is from Bareilly that the rarest birds of the hills are brought.

H. C. HESELTON.

[Such names as "Hodgson's Fruitsucker" and "*Chloropsis hodgsoni*" (Vol. VII. p. 12) are not recognised in modern books; and when I wrote the letter which appeared in December last, at page 73, I had Hardwick's Fruitsucker, *Chloropsis hardwickii*, in my mind.

On looking into the matter I find that *Phyllornis hodgsoni* is the modern *Chloropsis aurifrons*, the Gold-fronted Green-Bulbul.

I apologise to Mr. Heselton for my blunder, but do not say I am sorry that the mistake should have occurred, for it brings prominently

under notice the great inconvenience and annoyance that are caused by the use of obsolete names, both English and scientific. So loosely are names now used that it is sometimes difficult, sometimes *impossible*, to know what species is referred to.

In the early days of the Avicultural Society, it was resolved that the scientific names given in the British Museum Catalogue of Birds should be used by us as far as practicable. I have myself kept to this rule, but it has very generally been ignored by the other members, I regret to say.

I am not without hopes, however, that steps we are now endeavouring to arrange may lead to an improvement, not only as regards the use of scientific, but also as regards the so-called "trivial" names of birds.

A name ceases to be of practical use when no definite subject is connected with it. It is simply an "uncertain sound."—R. P.]

THE ALL-GREEN PARROT.

SIR,—I have been asked to send a few notes to the Magazine on the All-Green Parrot, *Chrysotis agilis*, which I have had some time. This bird (sex unknown) is of a lovely emerald green on head, back, and wings; breast, a vivid grass green, and much lighter. The wings underneath are dark blue shaded to green, and four short red feathers lie on the blue, but are not seen unless the wings are open. At present the wing feathers are very rough and ragged, having been cut before it came to this country.

The bird was brought from Jamaica by Mrs. Leslie Williams, and, apparently, must have been in its first plumage, as it has grown since I had it. It is about the size of a Pigeon, and weighs ten ounces. The beak is grayish; eyes, dark brown; and there is, on each side of the head near the eyes, a small patch of brown feathers; legs and feet, gray.

The bird is very tame, and lets one handle it freely, and is of a very jealous disposition, and cannot bear to see any other bird noticed. It was great friends with my dear old favourite "Sweetie," the Blue Mountain Lorikeet, and for some time lived in the same cage; but one day there was a serious quarrel, and the apparently happy couple had to be separated, and never again would either enter the other's cage. M. HAMILTON.

GREY PARROTS.

SIR,—It may interest members to hear that, whilst visiting at a farm house in Anglesey, I saw three Grey Parrots which had one wing clipped, otherwise they were allowed perfect freedom. The owner informed me that they had been out for some months, that they all roosted in a wooden box which was put out for them, and that they were let out every day, no matter what the weather was like. The day on which I saw them was

bitterly cold with heavy showers, but the birds appeared to be thoroughly enjoying themselves in the trees, and were in very nice feather, excepting of course the clipped wing. This was the first time I had ever seen Grey Parrots in freedom, so I was naturally very interested.

H. SPEED.

THE PIN-TAILED WHYDAH.

Vidua principalis.

SIR,—I should be so glad if you could give a little advice in the *Avicultural Magazine* on the treatment and feeding of Whydahs.

I have a pair, bought at different times, that I put together in a large aviary-cage indoors. They agreed perfectly for many weeks, when the cock turned spiteful, and would I feared have killed the hen, so I separated them by a wire division; and for many weeks they have lived peaceably in adjoining compartments. But, during the last two days, his spiteful fit has returned, and they mutually fight through the bars, both with outstretched wings and with angry sounding notes. I can find no history of them in any of the *Avicultural Magazines*—and I have them all—for I am an original member of the old Society, and have a large number of birds.

I feed them on Indian millet, white millet, and canary seed. They are both very healthy and lively. They are not Paradise Whydahs, but the kind with Skylark markings and a dark tail. The cock is only two years old I believe, and has not a very long tail but it is getting on.

B. MORTIMER.

The following reply was sent to Mrs Mortimer:

If your birds are the Pin-tailed Whydah, the male is almost invariably an exceptionally vicious and spiteful creature, not always at first, but getting worse and worse as he grows older and more accustomed to his surroundings, attacking almost every inmate of the aviary that he dares to, besides the males of his own kind. In a large aviary, however, he usually pursues his own and the females of other species, with comical aerial dance, more from love than spite; for these birds in the wild state have MANY wives, who nest in the long grass in open spaces, whilst he goes dancing about in the air above them. The female has never given me any trouble when loose in the aviary.

The only treatment for the male that I can suggest is to keep him by himself, or with large birds which will not stand his nonsense.

In a cage, the male Pin-tailed Whydah is rather wasted, as his great attraction is his dancing on the wing in the open aviary.

It is a very simple feeder, the seeds you mention being quite sufficient, but you might add spray millet.

They are good livers if kept moderately sheltered and warm.

Doubtless you know that, like the Paradise Whydah, this species has a winter and a summer plumage.

REGINALD PHILLIPPS.

SPECIES OF *PALÆORNIS*.

SIR,—I have just received six Parrakeets said to be Plumheads. Three have red patches on the wings or shoulders; three have not these patches; they all have lavender heads, but the three without the red patches have a shade of red or blush, not a real red, in the blue or lavender. What I wish to know is this: in *Parrots in Captivity* it states that the young and the hen have no red patch on the wings, yet three of these have the red patch on the wings, and the *lavender head*. Can you explain this? I am feeding on hemp, canary, millet, and oats, and as they are newly imported I have them in the kitchen in a large cage. They are in good feather.

F. H. RUDKIN.

The following answer was sent to Mr. Rudkin :

I think the only explanation of your difficulty must be, that you have received two species—the true Plum-head or Blossom-head (*Palæornis cyanocephalus*) and the Burmese Blossom-head or Rosa's Parrakeet (*P. rosa*).

The three with no red patches, but with traces of red in the lavender of the head, are probably young males of *P. cyanocephalus* and will develop the red shoulder-mark as the red on the head becomes more pronounced.

The three with lavender heads and red shoulder patches are hens of *P. rosa*, the Burmese type.

That the two birds are probably imported mixed together, is not surprising. At the Crystal Palace last year I believe a male Plum-head was exhibited with a female of Rosa's Parrakeet (as a pair).

A. G. BUTLER.

FOOD FOR GOLDFINCHES.

The following advice has been sent to a member in reply to a query :

A Goldfinch should be fed upon two parts best canary, one part German rape, one part hemp, a little teasel, thistle, or dandelion; all three if easily obtainable.

During the winter, if you grow some rape seedlings in a box, and cut some of the cress daily for the bird, he will much appreciate it. In the summer, groundsel and chickweed may be given instead.

On no account use packet-seed, as it contains a good deal of inga-seed. My experience, and that of many others who have paid especial

attention to the feeding of finches, is—that if they are fed constantly upon a mixture containing this seed, they invariably sicken and die early.

A. G. BUTLER.

GREY PARROT IN TROUBLE.

SIR,—I have a young Grey Parrot, supposed to have been brought to England last March. He is clean moulted, tail just showing; eyes just turning yellow since here; eats with relish white bread soaked in tea, or milk that has been scalded. He will not touch anything else, with the exception of Parrot maize, and that I do not think he eats; he seems only to powder it up, as I find almost the same amount of powder as there was maize given him (that is only when I have withheld the bread to see if I cannot make him eat corn or otherwise). He always has a tin of mixed seed and a tin of maize in his cage, also grit. We have tried him all ways to eat fruit of all kinds, also nuts, but he will not touch them; he will take a small piece of orange, and that is all.

He sits on his perch all day without moving, unless made to come to the bottom of the cage for his food. His head feathers are almost always erect, and he looks a perfect picture of misery. He utters no sound, only when he sees his food (the soaked bread) he squeaks once or twice. Up to a day or two ago he used to make a horrible row whenever I went near his cage, but he has stopped that now; it seems too much trouble for him to move, he sleeps nearly all day, and I think he gets thinner.

I had him in a small cage, as I thought being a young bird he would be better, but have removed him into a large cage to see if it would make him better, but no good. When he evacuates he does so with a squeaking noise, and mostly his evacuations are frothy when first passed. He wakes up and cleans himself now and again, but in a way that appears a great trouble for him to even do that. Thinking it was his liver, we have given him a few drops of aconite and mercurium in his chilled water. He has been here since December 8th.

Can you tell me what is the matter with him, and what I can give him? He looks (when his feathers are done properly, which is not often) quite well, and a rather nice looking bird.

HY. J. BULL.

P.S.—I might say he is in the same room as my other birds: an Amazon, African Grey and Yellow Crested Cockatoo; and my wife is in and out all day, so it is not as if he were by himself.—H. B.

The following reply has been sent to Mr. Bull:

You are feeding your bird most improperly, and if you continue the treatment you will most certainly lose it before long.

The larger parrots, and in fact all but the Lories, Lorikeets, and one or two others, are naturally extremely dry feeders: they drink water only,

once or at most twice in the day, when at liberty; and the only other moisture which they swallow is in the form of fruit.

To feed a Grey Parrot upon sop, and especially sop flavoured with tannin, is to ruin its digestion and undermine its constitution.

A Grey Parrot when first imported may have a little boiled maize daily in addition to dry seed; because, when in the nest, it has been fed upon partly digested cereals and fruit (probably plantains) by its parents; but as soon as it eats dry seed freely, boiled maize may be discontinued, though a little occasionally will not hurt. From the first, banana, sweet-water grapes, ripe orange, pear, or sweet apple should be given daily; dry plain biscuits, such as captains, cracknels, or arrowroot are always good; and nuts, especially walnuts. When in season green peas in the pod are much appreciated.

The best seed-mixture for a Grey Parrot consists of wheat, dari, hemp, and canary; the last three in equal parts by measure, the first about half as much as of the others or it will be wasted, unless the bird is really hungry.

It is of no use to say the bird will not eat these things; it *must* eat them if it is to live and become healthy. What do you do to a child if it will not eat wholesome food? Do you immediately offer it something poisonous to tempt its palate? If it is hungry it *will* eat: a little healthy hunger never killed anything yet.

A. G. BUTLER.

MOCKING-BIRDS.

SIR,—I should be much obliged if you would kindly let me know if I could safely keep (without danger to the other birds) a pair of Mocking-birds (presumably *Mimus patagonicus*)* in the same aviary with Virginian Cardinals and Blue Robins? also whether, if I added a hen *polyglottus*, the two Mocking hens would quarrel? I propose to turn out these Mocking-birds in April: would that be too early?

The aviary is a large one, about 20ft. long by 15ft. in width, and well planted with shrubs, with a warm shelter at one end.

FREDERIC WALLOP.

The following answer has been sent to the Hon. Frederic Wallop:

From what I know of the behaviour of *Mimus polyglottus*, when associated (without a wife) with other birds as large as, or larger than, itself; I should be afraid that, when it had a wife to protect, it would not be content merely with scaring and chasing its companions; but would do its best to kill them.

* *Mimus patagonicus* (sometimes *patachonicus*)—the Patagonian Mocking-bird.—R. P.

Virginian Cardinals would probably be able to hold their own; but Blue Robins would be tolerably sure to be killed. With the exception of Doves, I have not found the hens of birds very quarrelsome; but it is possible that the cock *Mimus patagonicus* might persecute the hen *M. polyglottus*, if his proper mate were also with him; *that* you can only decide by experiment, being at hand to catch out the Northern bird if necessary.

A. G. BUTLER.

BREEDING BIRDS IN IMMATURE PLUMAGE.

SIR,—The very interesting account of the breeding of the Satin Bower-bird in the December number of the Magazine records an instance of the rather unusual occurrence of a bird breeding in the immature, or rather perhaps more properly, *imperfect*, plumage.

These male Bower-birds are described in the article referred to as being out of colour; but one was gradually assuming his proper dress at the time that he was assisting at the nesting operations.

Some of the larger birds of prey, which are long-livers, and slow to attain maturity, breed before assuming the perfectly adult plumage. I have a photograph before me of an old friend, now dead, taken in Norway, with a recently-caught female Goshawk seated on his wrist. This bird was snared on her nest, and with her brood, brought in from a long distance by some country people, who had seen an advertisement offering a reward for young Goshawks for training purposes. The picture clearly shows that the bird was in the plumage of the second summer. The poor thing was almost exhausted for want of food, but by patience and skill my friend restored her to perfect health, and released her before returning to England.

Though I cannot find the reference, I feel sure that I have read of an escaped Peregrine (trained) being shot at the nest in the North of Scotland, with his jesses on, and in the red plumage. I knew myself of a male Gold-Pheasant which bred in the aviary of a fellow-member of this Society before coming into colour.

But, as far as my experience goes, these cases are uncommon, and seem to deserve notice.

W. H. ST. QUINTIN.

CONTINENTAL BIRD DEALERS.

SIR,—Referring to Mrs. Rathborne's enquiry (p. 149), I enclose Madame Hagenbeck's Price List of Foreign Birds, of date September, 1901, giving the address of her establishment (see below).

I had the pleasure of a look through Carl Hagenbeck's establish-

ment in September, 1901. He does not keep small foreign birds, but referred me to Christiane Hagenbeck.

I bought Black-headed Gouldian Finches and other small foreign birds from her, but her prices were higher than I have ever paid in England.

C. S. REID.

SIR,—I have had some experiences with Continental Bird Dealers, and know most of them personally, and have pleasure in furnishing the names and addresses of some of the best known:—

FOREIGN BIRDS.

1. Christiane Hagenbeck, Spielbudenplatz 19, Hamburg IV.
2. August Foekelmann, Hamburg-Hoheluft, Gärtnerstrasse 72.
3. Georg Brühl, Kötzschenbroda, bei Dresden.
4. Gebr. Winkler (Winkler Bros.), Dresden-Altstadt, Zwingerstrasse.
5. T. O. Rohleder, Leipzig-Gohlis, Wilhelmstrasse 4.
6. Wilhelm Dietze, Leipzig, Kurprinzstrasse 20. (Speciality, Shamas, etc.)
7. Schiffer and Co., Köln (Cologne).
8. Gustav Voss, Hofliefer, Köln am Rhein (Cologne on the Rhine).
9. Guido Findeis, Wien (Vienna), I. Bezirk, Wollzeile 27—29.
10. Geneva, Boulevard des Plain Palais, left side. (The name I don't remember, but it is very easy to find).

EUROPEAN BIRDS.

1. Mathias Rausch, Wien (Vienna).
2. R. Hubrich, Triest.
3. "Ornis," Prag (Prague).
4. T. Beck, Stuttgart.
5. H. Ehrlich, Würzburg. (Speciality, Bluethroats, Long-tailed Tits, Firecrests, &c.)
6. W. Hiltmann, Berlin, Dresdenerstrasse 24.
7. R. Wilhelm, Berlin, Lindenstrasse 37.
8. Präparator Zollikofer, St. Gallen, Switzerland.

PIPING BULLFINCHES.

Ludwig Hildebrand, Schlüchtern, Bez. Cassel.
Kantor Schlag, Hallenbach, Thüringen.

ROLLER CANARIES.

Robert Erutges, Elberfeld.
C. Lange, St. Andreasberg, Harz.
C. G. Vodel, Leipzig, Pfaffendorferstrasse 16.

I know many more, but probably these will be sufficient.

HERM. KESTERMANN.

SOUTH AFRICAN BIRDS.

SIR,—I am anxious to know whether you or any of your readers could name the following birds which I will try to describe. They were brought by a friend of mine from Cape Colony about three weeks ago. A professional bird catcher caught them for him near Middleburg, where he has often seen them flying about—there are five Weavers (?), three cocks and two hens. They are like in shape to my Orange Bishops. The hens are grey and the cocks have a black mask, orange-red ring about a quarter of an inch wide round head and throat, dull orange shoulders merging into bright orange-red to just beyond root of tail, velvet black from orange band round throat, all underneath up to root of tail where there is a patch of orange. They have far more black than my birds: wings and short tail same as my Bishops. I enclose feathers to show colour, as it seems rather different to mine. As I am on a visit I cannot see the birds together. The other birds are two Cape Canaries and three small Waxbills, and then there are two I want named: About the size of a Chaffinch, beak like Bullfinch, head and throat a bronze-red, they look as if they had not quite got their colour yet. Breast and flanks laced like Silver Wyandotte fowls. I enclose feathers. The lacing becomes light brown underneath, merging into white below tail, wings and tail same as feathers I enclose with irregular markings, back light brown, tail slight, about one and a half inches long. They have a little warbling song and stretch themselves out like Cutthroats when they sing. The natives call them “Red-headed Finks.”

N. J. F. DUNLEATH.

The following reply has been sent to Lady Dunleath:—

I think there can be no doubt that the Weaver is the smaller variety of the Oryx Weaver (Grenadier) to which the name of *P. sundevalli* has been given. It was supposed to represent the more northern race of the species, but is said not to be constant.

The other, I should say, has been correctly identified as the Red-headed Finch (*Amadina erythrocephala*), but the colouring of the head has probably not been perfectly developed yet, and will become dull blood-red instead of bronze-red. I suppose the feathers you sent are from either the breast or flanks, the buffish tint being confined to the centre of the feather behind the black and white bars.

A. G. BUTLER.

 INSTINCT AND NEST-BUILDING.

SIR,—I shall be very much obliged if you will tell me if, in your experience with breeding birds, you have known any cases where they have been reared quite away from any adult birds of the same species; and then

have *built nests* like those of their kind, *without any instruction* from their parents or others.

Biologists are somewhat divided on this point, of the question of *Instinct*, and I have not been able to hear of a *good case* of spontaneous nest-building, where no instruction could possibly have occurred.

(Rev. Prof.) GEO. HENSLow.

[I am not acquainted with any good case. The subject is one of importance and of very great interest; and if any of our Members can help us we beg they will do so.—R. P.]

MALE LYRE-BIRD INCUBATING.

Mr. D. Le Souëf contributes the following interesting note to the January number of the *Emu* :—

“ On 28th August, when in a fern gully at Gembrook, I found the nest of a Lyre-Bird (*Menura victoriæ*) in the steep bank of the creek, and the male bird was sitting on the egg, the hen bird being nowhere in sight; and on two other occasions this season I have heard of male birds being disturbed off the nest; in most of the nests I have before found it was the female sitting, but we now see that both parents assist in the incubation.”

PROPOSED GENERAL INDEX.

The Editor has not yet received the names of nearly enough members who would be willing to subscribe for a copy of the proposed index to the first eight volumes of this magazine to justify the Society in going to the expense of bringing this out. All members who wish to subscribe are asked to send in their names without delay. The price per copy will be 6s.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case. Domestic poultry, pigeons, and Canaries cannot be dealt with. No replies can be sent by post.

COMBASSOU. (Mrs. Holding). [Bird died of pneumonia].

PINTAIL NONPAREIL. (Hon. Mary C. Hawke). Bought at the end of December and has been ailing ever since. [Bird died of sub-acute inflammation of the liver of long standing. I have kept them out of doors in warm weather].

AMHERST GOLDEN PHEASANT. (Mrs. O. Gregory). Seemed quite well until a few days ago, when it has looked puffy and not eaten well. [Your bird has been ailing a long while: cause of death was tuberculosis: the bird was only a frame].

PICUI DOVE and hen CALIFORNIAN QUAIL. (Miss Alderson). Dove appeared in perfect health a few hours before it was found dead. [Fractured skull]. Quail appeared ill yesterday; died to-day. [Tuberculosis; the bird was only skin and bone].

GREY SINGING-FINCH. (Mr. J. W. Tidey). [Syncope from exhaustion].

CANARY. (Mrs. Sherbrooke). Seemed dull about a fortnight and did not sing, slept a great deal, appetite good all the time. [Congestion of liver and jaundice].*

CORDON BLEU. (Mr. M. E. Rycroft). Found dead with one or two others on bottom of cage. [Pneumonia. It is unwise to put birds of this species into an unheated room at this time of the year when they are freshly imported. These birds are decidedly delicate, although one occasionally hears of a hardy one. It was a hen].

COMBASSOU. (Mr. Tomes). [Bird was very plethoric and died of apoplexy].

BUDGERIGAR. (Mr. M. E. Rycroft). Mopey yesterday, found dead to-day. [Inflammation of the oviduct from retention of a broken soft-shelled egg].

ARTHUR GILL.

* Members are requested not to send Canaries to Mr. Gill, as these are outside the scope of this magazine.—ED.



BALEARICA PAVONINA.

Bale & Danielsson, Lith. imp.

From a living male in the possession
of M^{rs} Gregory.

Avicultural Magazine,

BEING THE JOURNAL OF THE

AVICULTURAL SOCIETY.

New Series.—VOL. I.—No. 6.—*All rights reserved.*

APRIL, 1903.

THE CROWNED CRANE.

Balearica pavonina.

By Mrs. GREGORY.

(Continued from page 160).

The voice of the Crowned Crane is much less loud and more melodious than that of any of the other Cranes, with the exception, Tegetmeier says, of the Asiatic White Crane (*Grus leucogeranus*), whose cry he describes as being "very feeble—a mere chirrup for so large a bird." To explain this he says, in *The Natural History of the Cranes*, "In general, the trachea (of Cranes) is elongated and forms a convolution within a cavity in the keel of the breast bone, but it is remarkable that this structure does not occur in the Crowned Crane (*Balearica*)."
My bird makes no sound (beyond a "cluck" of pleasure sometimes) unless he is *frightened*, either by the approach of a stranger or the sight of a few feathers on the ground; even at a few little Sparrows' feathers I have seen him stop with a most alarmed look, and croak loudly many times.

His walk is slow and stately, but he *can* run at a great pace, with wings outspread. His habits are retiring; at first he was so shy his great idea seemed to be to hide himself, and I often had a difficulty in finding him, for he generally selected pampas grass to stand or lie behind; and his wonderful buff-coloured crest so much resembled the grass in colour, and made him so difficult to see, that I sometimes wondered if this crown could have been given him as "protective colouring."

He is very fond of water, and the last hour or two before retiring for the night he spends by the side of a pond, standing

so close to the edge that he sometimes has to spread his wings to prevent himself from falling in. Before he was pinioned, he used to fly on to the rocks in the centre of the pool, and made a beautiful picture standing there flapping his large white wings.

Cranes are wonderfully intelligent! As an instance of this, my bird has learnt to pick up with his beak a string which is tied to the lid of a tin box, in which his seed is kept; the other end of the string is fastened to a window, from which it can be pulled to shut the box when the Sparrows come in flocks to steal the grain. At first the Crane stood patiently by waiting for me to do this for him; now he has learnt to open the box himself; perhaps some day he will close it after him!!

My last remark is, I am astonished that these particular Cranes are not more frequently kept in captivity. They have not a single fault as far as I can discover. Unlike other members of the family, they do *not* dig up newly planted turfs, destroy borders, and root out bulbous plants. Above all, their almost musical and seldom sounding voice makes them irreproachable pets where neighbours have to be considered.

THE BLUE WHISTLING THRUSH.*

Myiophoneus temmincki.

By The Rev. HUBERT D. ASTLEY, M.A.

Through Mr. Phillipps' courtesy I became the proud possessor, last September (1902), of two Blue Whistling Thrushes (Temminck's) which at that time, and indeed it may still be the case, were I believe the only specimens in Europe.

Mr. Phillipps most kindly sent them to me in Italy at the hands of a friend, who must have wished me, or at any rate the

* Mr. Astley's name of Blue Whistling Thrush belongs to *M. caeruleus* (*Avic. Mag. VII., 209*), a Chinese species very like it but with a black bill, which has been represented at the Zoo. Mr. Astley's species is Temminck's or The Himalayan Whistling-bird.

I have before remarked (*VII., pp. 203-4*) that the usual name of Whistling "Thrush" for birds of the genus *Myiophoneus* is incongruous and misleading. That of "Whistling-bird" would be better, and would readily lend itself to adoption from its similarity to the other.—R. P.



HIMALAYAN WHISTLING-THRUSH.
Myiophoneus temmincki.

From a living male in the possession of the Rev. H. D. Astley.



Thrushes, at the bottom of the sea. But my great pleasure at receiving them safely after two days and one night's journey, seemed to compensate the bearer for any trouble he had in conveying them.

Mr. Phillipps had had them a very short time in his care, and had not had much opportunity for knowing them at all intimately, and he wrote to me to say that the bird he considered the male was *less* shy than the other (whose sex he was doubtful about), but that the other was terribly timid, and he advised me to give it some nook into or behind which it could shelter. Then, too, this one had fits, whilst the other was by no means in robust health; indeed both birds were in a precarious condition when received by Mr. Phillipps. Whether it was the beautiful climate of the Italian Riviera, or what, I can't say. That certainly would very easily account for the rapid recovery to robust health which both of the Blue Whistling Thrushes underwent, but did it also account for their change of demeanour? Mr. Phillipps had warned me not to handle them if I could help it, but if there is a thing I do dislike to see, it is a bird that *ought* to be very handsome, which is rendered the reverse by a half-inch of broken stumps instead of a tail, so that I couldn't resist removing these stumps from the bird that was very evidently a male, at the risk of rendering him more timid than he was already said to be.

On the following day he very much enjoyed a bath in the sunshine of an Italian day in early Autumn, and from his whole demeanour I began to think that he must be like some people who conceal their natural shyness under a bold manner. Two days after they arrived, I went so far as to venture to let "Tommy" (the one whom I had welcomed by tweaking out his apology for a tail) come out of his cage in the dining room, so at home did he seem. Certainly I expected he would probably dash wildly about when once he found he was out of his cage: instead of which he hopped about the floor as if he had been there all his life. A small piece of Gruyère cheese was thrown to him, which he at once swallowed. After lunch his protector (on his journey out) sat down on a sofa and placed a piece of

cheese on his knee. Tommy, from the floor, stretched himself up on tip-toe, peered about, and without more to-do hopped on to the sofa by his side, and thence on to his arm where he very quickly seized the piece of cheese offered in his fingers. And this was the shy, timid bird that I must take care not to disturb, or handle!! Would Mr. Phillipps have ever spared him to me, could he have seen him then?! I shouldn't have blamed him, if he hadn't.

And after a fortnight I hardly dared let him out! and why? simply because he had become so arrogant and autocratic, that he flew at me like a furious game-cock, settling on my hand, and pecking till he drew blood.

In three days' time after his arrival, he began to sing, *sotto voce*; to record, as they say, and a very pretty warble it was, sometimes like a Blackbird's, but intermingled with curious bubbling and guttural notes, which remind me of the manner in which a Blue Rock Thrush sings.

By the 10th of November his new tail was full grown, and his whole plumage, from daily baths, wholesome food, and fresh air by day *and* night, in beautiful condition.

As to the other one, which at first I thought to be a female, but about whose sex I am now doubtful*, it is true that for a few days it was decidedly timid, but not too timid in the small out-door aviary in which I had placed it, to come down and take a bath as well as food within two yards of me. The traces of fits, about which Mr. Phillipps had warned me, were still visible in a certain twirling of the head and an unsteadiness of gait, but in a week those symptoms had quite disappeared, and the bird was as strong as possible, very quickly becoming glossy in plumage, and tamer. But in a week this bird also was 'recording' in exactly the same tones as 'Tommy'; so that, although hen birds of some species, especially perhaps of the Thrush family, do record in Autumn, I began to wonder whether that also might turn out to be a male. The sexes are alike in the *Myiophonus* family (I believe), but this second bird is more slender in shape, more leggy, and of more feminine

* March, 1903. There is now not much doubt that it is a male bird also.—H. D. A.

appearance, although this may be merely a matter of being more juvenile than the other one.

Myiophonus temmincki is a native of the Himalayan range as far as the Tenasserim provinces. Colonel Irby has recorded in the *Ibis* that he found it common in Kumaon in May (1859), and adds that it is rather solitary in its habits.

Mr. W. E. Brooks (*Ibis*, 1869) wrote that he saw this bird several times, generally by rocky and mountain torrents, and that its song is pretty and Thrush-like. He observed these birds near Myree Tal and Almorah.

Jerdon says that the extent of the wing is 21 inches, and adds (*Ibis*, 1872)—“I have found this bird in various localities in the N. W. Provinces, viz: near Saharanpore, in the Bynori district, and also in the Punjab. I found its nest near Mussooree, in a hole in a cliff at the very edge of the Batta waterfall. It breeds at a height of 8,000 feet, in the end of May. This beautiful bird is also generally distributed over the lesser ranges and valleys of Cashmere, where it frequents mountain streams, and builds a nest like that of a Blackbird, to which in habits and *general* appearance it bears a resemblance.

“Its note is musical, slow and measured.

“Its food consists of insects and larvæ.”

Gould (*Century of Birds*) has written that this species fully equals in size the *Myiophonus flavirostris*, and is adorned with plumage, if possible, still more intense and brilliant in colour. The principal characteristics however (he adds) which distinguish the species from the Javanese bird (*M. flavirostris*) are its more slender beak, more lengthened tarsi, and a tail longer in proportion to the dimensions of the body. Gould also records that *M. temmincki* is found equally in the warm regions of the Doon, and the colder temperature of the higher grounds—that its native name is Kuljet, and that its habits and actions, when on the ground, much resemble those of the English Blackbird.

The general plumage is black with azure reflections; the forehead and shoulders bright lapis-lazuli blue. Each feather on the back, as well as on the sides of the neck and chest, is

glazed along its centre, which gives to those parts of the bird a metallic lustre. This peculiar glossy glaze is most difficult to reproduce in a water-colour painting.

The wings and tail, which in the shade appear to be almost black, flash out into a superb and brilliant deep blue in the sunlight. There are small triangular white spots on the tips of the feathers of the greater wing coverts. The quills are black, the bill orange-yellow, but stained with brown on the upper mandible, whilst the legs and feet are black.

In an aviary, and especially at first sight, the Blue Whistling Thrush resembles a gigantic Blackbird (*Turdus merula*), both in movements and appearance, but it has one very characteristic action of the tail, peculiar to its particular family, I should imagine. Upon settling on a branch, or on being startled in any way, the tail is jerked up and down two or three times, and then fanned out laterally, exactly as if a string was being pulled inside, and also in just such a manner as a lady's fan is quickly opened and shut. The whole tail is spread out somewhat slowly into this broad fan form, to be immediately shut up again sharply, when it is again extended, and the action again repeated several times.

A more charming pet I have never possessed, for it combines extreme rarity (as regards a European cage-bird), great beauty, audacious tameness, and a charming song.

In addition to this, I do not think the Blue Whistling Thrush, breeding as it does at a height of 8,000 feet, can be a delicate bird.

I feed these two on Abrahams' egg bread, ants' cocoons and silkworm cocoons, about which latter I should like to say a word. In Italy one can buy a large sack for 20 francs, all ready pounded up, and being quite dry, it will keep any length of time. It is rather strong smelling 'en masse,' but that is not noticeable in a small quantity sufficient for a day's feed. It is composed of the large cocoons of the silkworms, which are put aside after the silk has been wound off for the manufactories*.

* It would be more correct to say chrysalides, or pupæ; the cocoons are the outer coverings which are wound off.—A. G. B.

In Italy Blue Thrushes, Rock Thrushes, Blackbirds, and Nightingales, etc: are almost invariably fed on these pounded silkworm cocoons mixed with "farina," which is ground maize. I recall that some mention was made of this insectivorous food, by Mr. Phillipps I think, in one of the summer numbers of 1902, as being something new to him; but I have known of it for some fifteen years, and cannot imagine why I never introduced it into England for my birds, and perhaps also for other people's too.

I now feed my pair of Hunting Cissas on it, as well as any other insectivorous birds that I have, and find they like it well after the first two or three days of introducing it to them. Given plain and in too great a proportion, it *might* be overheating, but I haven't found it so.

The Blue Whistling Thrushes are very fond of fruit, and when my Italian garden yielded it's vintage, they would swallow three or four grapes one after the other, ejecting later on the pips, but not, as far as I could see, the skins.

They are birds that love their baths very much, and a fine splashing they make in a fair-sized pie-dish, which is none too large for them.

[Since writing this, word has been sent me that it is not intended to reproduce my water-colour painting in colours. This I regret, as though but an amateur artist, the drawing was sufficiently like the original to show our members in one moment by a picture, what one cannot do in one year by a verbal description.

As I believe I possess the only two living specimens of *Myiophonus temmincki* in Europe, and as those two are at this moment in Italy, I fear I cannot lend them to a professional artist for the purpose of painting them, whereby the Society is a loser.—H. D. A.]

WADERS IN CAPTIVITY.

By W. H. ST. QUINTIN, F.Z.S.

There can be no doubt that, as the writer of the interesting paper on the Ruff in the February number of the Magazine says, the members of this family of birds are, to those who can contrive a roomy aviary, with grass lawn, and abundance of clean water, among the most charming of pets. If my experience, especially as to diet, is likely to be of any use to those who may be inclined to try Waders, but are deterred by fear of trouble or cost, I shall be happy to give it.

In the first place, let me say that my experience entirely confirms what Mr. Porter says as to the hardness of many of the Waders. I find that, if obtained with sound feet to begin with, several species, especially if full-winged, are quite indifferent to any frost that we ever have, even in East Yorkshire. And, if the aviary has a lean-to shed at one end, facing South, as a refuge, with clean gravel beneath it, even deep snow makes no apparent difference to their comfort, if care is taken that they always have access to unfrozen water.

(This does not apply to Snipe, Woodcocks, Dunlins or Dotterel, nor to some other birds, not Waders proper, but which may be associated with the latter in mild weather, such as Spoonbills, or the smaller Herons, Bitterns, etc.)

My own Waders' aviary is 73 feet long, and 31 feet wide, with a lean-to shed at the North end, and a pond with a stream running through it near the opposite end, about 21 feet by 10 feet.

Some yews and hollies, kept low, afford shelter on the East. And I found it necessary to board up the sides, and the South end of the aviary, to a height of 18 inches. This gives shelter from wind, and prevents the occupants, when new comers, from fretting up and down against the wire netting.

Part of the ground is gravelled over, part is under turf; and I have tussocks, and clumps of the coarser grasses here and there to give shelter and a sense of security.

Here I have kept for several years, and apparently in

thoroughly comfortable imprisonment, Knots, Ruffs and Reeves, Bartailed Godwits, Redshanks, Waterrails, Landrails, Common Sandpipers, Lapwings, Stonecurlews, besides Nutcrackers, Siberian Larks, and sometimes in summer Pintailed, and Black-bellied Sandgrouse, and Chinese Quail.

But far the most delightful of all the non-waders were some half dozen Pratincoles, which were turned out for the summer about three years ago. They charmed everybody by their agile flight, and lively movements, running along the gravel, chasing the flies which visited the food dishes, or hovering like Terns before the door, if they thought that I had some mealworms to show to them. Unfortunately we had a visitation of Sparrowhawks which, in spite of all the measures that we could devise, relentlessly persecuted the inmates of this aviary, which is some way from the house, and near a wood. Of course the Hawks could not touch the birds; but they caused several of them, especially the Knots and the Pratincoles, to dash themselves against the wires in their panic; several being killed outright, and others having to be destroyed as being injured beyond recovery.

In the end I had to withdraw the Pratincoles, and to shorten the wings (both) of the Knots. The Redshanks, and Ruffs, and Reeves I have been able to leave full-winged, and never found them to touch the wires, except on one occasion when a very small Weasel contrived to get into the aviary, and then I lost a Ruff and a Reeve.

And now I come to the question of diet. My Waders scarcely ever see a mealworm; but they manage to capture a good many insects which find their way into the aviary, especially in spring and summer. Twice a day a flat dish is put in, containing Spratts Poultry Meal and crissel scalded, and mixed with a little insect food (dried corixae, and ants' cocoons, I believe), and made into a crumbly mass with ground oats. Another dish contains some finely chopped sheep's heart, liver, or rabbit; but the former is the best.

The birds thrive on this diet, and the Ruffs assume, and throw off, their extraordinary nuptial dress completely, and at

the proper seasons: which goes a long way to prove health and condition.

One of my Reeves has nested these last three summers; hollowing out a cup-shaped depression in a tuft of grass, much as a Dunlin does. She has not always been fortunate in her choice of site, and last year her eggs were broken (we suspected the Stonecurlews). But in 1901 a young bird was hatched, though it did not leave the nest. This was probably owing to the aviary being rather overstocked. Each time the little bird left her eggs or returned to them, she was attended by an interested party of her companions, and incubation was carried on under great difficulties.

Reeves and Redshanks do not require much cover for their nests. If the grass is allowed to grow in patches six or eight inches high, that is quite enough. The rest of the lawn is better kept mown close.

HOW *NOT* TO BREED REDRUMPS.

By EMILY BRAMPTON.

We have read in the Magazine many interesting accounts of the successful rearing of various foreign birds, but we do not often see accounts of the other side of the picture.

Rearing birds has been called "The triumph of hope over experience," and sometimes I am inclined to think that other members get all the experience, while little more than the hope falls to my share. Of that I have always an unlimited quantity.

Being fired with the ambition to rear some young Redrumps, I purchased a beautiful pair of these birds two years ago, and turned them into my Cockatiels' aviary. The new arrivals were certainly young and skittish, and they soon made it evident that they did not intend to be dull themselves, or to let me be so.

There were two pairs of Cockatiels in the aviary, and no sooner did these unlucky birds decide on a nest-box and get comfortably settled in, than the Redrumps came down like wolves on the fold, evicting the rightful tenants, and taking

possession themselves! There was generally one egg at least in the boxes when these raids took place, but they were easily rolled into a corner and gave the conquerors no trouble. This see-saw backwards and forwards was very bewildering to me; and apparently the Cockatiels found it the same; for first one hen and then the other gave up the struggle and quietly died, and the two disconsolate widowers were removed to more peaceful quarters.

Last season the Redrumps had the aviary to themselves, and again they did their best to give me an interesting summer. In February the cock started feeding the hen, so I put up the nest boxes, artfully concealed among furze and dead branches, and supplied a more generous diet.

For weeks they played in and out of the boxes as they had done the previous season, but in May the hen disappeared and remained invisible for seventeen days, while the cock kept guard at the entrance of one of the boxes. When the young might be expected to hatch, extra seeds, especially hemp, were supplied regularly, with fresh groundsel twice or three times a day; and no doubt the birds had a royal time. I believe they were clever enough to know why the good living was supplied, and organised a regular campaign to cause it to continue. Whenever they heard me approach the aviary the cock would give warning, and the hen would race into the nest, while he kept guard at the doorway, and reported my movements. If, however, I came up undiscovered, he was scolding her in a most ill-tempered fashion, and these two changes of attitude used to puzzle me considerably.

At last, after seven weeks of patient feeding, no young birds making their appearance, I looked into the box. Even then the hen managed to slip past me and gain the nest unnoticed, evidently trying to pass herself off as a young bird; but though the interior of the box was rather dark I discovered the fraud. Further examination showed *one* clear egg and not even a piece of shell of any other.

Even then the birds tried their old tactics for a day or two, but, finding no more dainties forthcoming, settled down to

a plain diet of millet and canary, and the remembrance of past luxury.

They evidently mean me to have not even hope next season, for the hen has developed every symptom of French moult, and is climbing about the aviary with a very short allowance of flight and tail feathers*.

THE CHIFFCHAFF AS A CAGE BIRD.

By C. M. MAYOR.

This pretty and diminutive Summer migrant is not, I believe, often seen as a cage-bird. As such, perhaps some people may think, it has little to recommend it; but, though its song may not be very pretentious, it is an engaging and very active little bird, and becomes very tame in the house.

In South Devon the Chiffchaff usually arrives about the latter end of March, and some few are supposed to stay through the winter. I have records by a careful observer in this district for most years since 1879, the earliest date on which he has first seen or heard the Chiffchaff being March 2nd in 1883, and the latest April 18th in 1900. It is certainly noticeable that in some years the bird is much more abundant than in others. In the Spring of 1893, for instance, we observed abnormally large numbers about our garden and the lanes of the neighbourhood. Often in March we experience a combination of hot sun and cold East wind, and at such times these little birds are very fond of frequenting the South walls of houses, an examination of which will generally reveal plenty of flies, sleepy bluebottles, and such like, enjoying a sunbath. Many of these insects probably fall a prey to the Chiffchaffs, and are sometimes pursued right into the rooms if the windows be open, as we have observed on more than one occasion.

In the Spring of 1891 I found a nest low down in a rough tangle of bramble by the side of a ditch. It contained six youngsters, and in a few days, when they were sufficiently

Will Miss Brampton kindly watch, and try and detect if this is not a case of feather-eating on the part of the male?—R. P.

advanced, I took the nest and its contents, and carefully placed it in a small wicker basket. One nestling appeared decidedly weak—a sort of “parson’s pig”—and this one subsequently died. I fed them from the first on soaked ants’ eggs—previously picked over—and small mealworms which I always broke in two before using. I was fortunate in having a good supply of these latter from an old mill near by. And what beauties they were! As fat as they could be, and so active that you would hardly think the poor skinny, sluggish creatures often supplied by dealers could possibly be the same insect. The young birds got along excellently on this diet, varied as much as I could with caterpillars, flies, etc. As soon as they evinced the desire to leave the nest, I put the five of them into a flannel cricket cap in a clean basket. After a few more days, however, when I opened the lid to feed them, they began to hop out like so many “Jacks-in-the-box,” so I transferred them to a warm roomy cage, wired only in the front, where they soon managed to feed themselves. But long after they could well do this, they always opened their little beaks and cried out when anybody approached them.

It seems somewhat inhuman, but I found it an excellent plan to cut up the mealworms with a pair of scissors into the dish containing the dry ants’ eggs, which adhered to the pieces of worm, so that both were consequently eaten together. Otherwise the birds would never have taken to ants’ eggs alone. After a time they fed freely on these,—either dry, just as bought, or soaked,—together with preserved yolk of eggs and a free addition of mealworms.

When the young birds were grown and had moulted they got in beautiful condition, and became very tame. One cock I separated from the others, as he was the finest of the brood. Unfortunately he made his escape through the wires of the cage into a conservatory, got out of the open window and no doubt joined his wild brothers, though history does not relate how he was received by them, or what was his ultimate fate.

I must say I was very pleased with the four remaining. There was something so neat and trim about the little fellows as to provoke admiration from any lover of birds. I was per-

suaded to exhibit two of them at a certain Show that shall be nameless, and this I subsequently had great cause to regret, as one of them caught cold and died, and the other was only highly commended, passed over in favour of two others of my own birds incomparably inferior, and judged beaten by a Blackcap, awarded 1st prize, that had a bald patch on its head! My two Chiffchaffs were in perfect feather and condition, and considering that they are by no means easy to hand-rear and keep, I was rather disgusted, and have never exhibited another bird from that day to this.

Some years later, I again reared a nest of this species quite successfully, but let them all fly early in the summer of the following year. All, that is, save one beautiful little cock bird, for which Dr. W. T. Greene kindly said he would find a home, as he had never previously kept the Chiffchaff in confinement. This bird, he wrote me, travelled well the long journey, reaching him safely and none the worse. After a time, however, it escaped either through an open door or window.

These birds are so small and active that they soon get out of a very tiny hole, and it is necessary to have the cage rather closely wired for them*. I have offered various fruits, but they only occasionally eat anything but insects, which, I suppose, form their sole natural diet. Flies they very much appreciate, so we used to keep butterfly nets handy indoors, as a few vigorous sweeps in the kitchen every day during the summer months generally resulted in a good "catch," which the Chiffchaffs appeared thoroughly to enjoy. Small moths, too, were a luxury for them, and all spare insects from entomological expeditions were divided among these birds and other "soft-bills."

I ought to mention that I always kept my Chiffchaffs in a warm room where a fire was burning during the winter, in fact the cages were placed in whatever room we were using. I stacked them one upon another each side of the window, carefully excluding draughts, and, if very cold, moved them into

* Every autumn, many of these charming little birds on migration visit my aviary, passing in and out through the three-fourths inch mesh of the roof without difficulty.—R. P.

the centre of the room before going to bed, so that the birds got the benefit of the fire during the night. I admit this is rather a troublesome proceeding, but the result of having your special pets always in the room with you is that they become exceedingly tame.

I had a Whitethroat for nearly ten years, and she became so tame that she would hop about on the hearthrug in front of a blazing fire without betraying any signs of fear. My Chiffchaffs would feed freely from our hands, and became quite pets.

THE HIMALAYAN BLACK BULBUL.

Hypsipetes psaroides.

By WESLEY T. PAGE, F.Z.S.

I had hoped to have been able to give a full account of this interesting bird, which was kindly presented to me by my esteemed friend, Mr. E. W. Harper—instead of which I have a tragedy to record. The bird had been in my possession barely three months when, owing to the garden gate being inadvertently left open, a strange dog wandered in, forced in the front of my aviary, and killed half my birds before it was observed, the Bulbul among the number. Its body was much knocked about, but I sent it to Messrs. Crockett, who have set it up for me and have made a very fair specimen of it.

Mr. Harper, when I saw him just before his return to India, informed me that it was popularly called the Goat Bird on account of its call resembling the bleat of a kid. He also considered (and I think very rightly) that its name of Himalayan Black Bulbul was most inappropriate, for it is not black at all, and that a more appropriate one would be the Coral-billed Bulbul.

He also stated that when wild it lived very largely on the pollen from flowers, but with the same it must also get a good number of insects, and not small ones either I should say; for while in my possession it never touched any of its other food till every mealworm was consumed.

It ranges over the whole of the Himalayas at from 3,000 to 4,000 feet, while many are also found at as great an altitude as 5,000 feet. It is gregarious, and is said to be very noisy in a wild state (this is also true of it in the aviary).

Its plumage is roughly, top of head, upper neck, flights and tail feathers, black; the rest of the plumage being iron grey, bill coral red, legs red.

Mr. R. Phillipps kindly copied out for me, from Jerdon's "Birds of India," an account of this bird for comparison; from which I now quote the description of its plumage, which is very true, save that the grey in my specimen was a little warmer in tone than perhaps the following description conveys:—

"Head sub-crested, black; body and wings dark ashy or iron grey; tips of the quills and the tail black; beneath dull grey, as above, the lower part of the abdomen and vent paler; under tail-coverts edged white; bill bright red; irides red-brown; length 11 inches."

To this I would simply add, quills very dark grey, almost black, merging into intense black at the tips; vent, almost white; and the bill I should describe as coral red.

It is said to have powers of mimicry. This I should consider very probable, but I had it under my observation too short a time to confirm this or otherwise; it is a bird of strong character, yet quite amiable, and can safely be kept even with the smallest Waxbills, and may be kept out of doors all the year round.

It is of very powerful flight, and flits from one perch or branch to another like a flash of lightning, yet in quite a natural and unscared manner; it is bold, yet apt to be wild in a fair sized aviary; its movements very much resemble those of our English Blackbird, but, as above indicated, it is even more alert, and rapid in its flight.

Song it has none; its call from which it takes its popular name is very realistic. Friends and neighbours unacquainted with the fact that I had such a bird thought we had a goat, its call was so real; to produce it the head is thrown back till it

almost touches its back, and the bill fully opened till the points are nearly an inch apart, and so produced the call, usually repeated several times in succession, and is exactly like the bleat of a young goat; my bird had no other, save a subdued clucking sound, a sort of shrill whispered imitation of an ordinary fowl.

It is not brightly coloured, yet is a handsome bird, of fine contour, and of a good upstanding carriage: the black feathers on the head being very fine and lustrous; each one stands separately from the other and is finely formed; these, when the bird is at all excited, are erected in the form of a semi crest.

When I first received the bird it was in the thick of the moult, and could scarcely fly from one end of the aviary to the other, but it came through the same very rapidly, and was soon in fine plumage and very strong on the wing. It was fed on Arthur's Finch Mixtnre, mixed with double its bulk of mashed potato or stale bread crumbs, plenty of fruit and mealworms, being especially fond of orange, eating a good sized one each day, though of course the fruit was varied, apple, banana, pear, etc., being also given. It also paid short visits to the seed pans and swallowed a little canary and millet *whole*; it was very fond of mealworms, and its companions had to be very sharp to get any of them.

I believe Mr. Harper also presented one of these birds to the Rev. C. Farrar; and I venture to hope he will be more fortunate with it than myself, and kindly supplement these rough notes with a fuller account a little later.

It seems rather strange why some of these fairly common (in their native wilds) birds are not more often imported. So far as I can trace, last summer there were only three of these birds in England, the two aforementioned and one at the Zoo. I shall certainly avail myself of the first opportunity of acquiring another specimen.

CAGE BIRDS IN SIERRA LEONE.

By ROBIN KEMP.

In March, 1902, the s.s. Fantee landed me at Freetown, the capital of Sierra Leone, to proceed up country some 55 miles to the small native town of Rotifunk, then the terminus of the railway.

There I found quarters in a wooden bungalow, in a compound containing orange, banana, lime, mangoe and other trees, from which, as far as the eye could reach, stretched the primeval bush, occasionally broken by rice-fields and with numerous swamps in every hollow.

It was not long before I began to get acquainted with the birds, and, so soon as the natives found a ready purchase for any of the feathered tribe, they were not slow in trying to supply me.

First of all a boy brought six or seven Tambourine Doves (*Tympanistria tympanistria*) which he had entrapped in a rice-field, with all their flight feathers, and in most cases their tails also, ruthlessly plucked out. Some of these had white breasts and some grey breasts. But I had no cage to place them in to prevent them wandering away, so I turned to and with some empty gin cases and pieces of wire, and a few branches for perches, managed to make them a couple of fairly roomy cages. I placed them on the verandah and used to watch them and wonder if the white-breasted ones were the same species as the grey-breasted. I believe the grey breast is the first year's plumage.* They were quite content with rice to eat as also was the next live bird that was brought along, viz., a Collared Pigeon (*Turtur semitorquatus*). This was a handsome bird, though not to be compared with the Green Fruit Pigeon which I obtained later. He was very wild at first, but settled down in a week or two. Unfortunately he came to a very sad end. About two months after obtaining him, I had to pass up-country on one of my frequent journeys, and left him in the pink of condition. On my return the following day the cage contained only three or four bones and feathers. Ants had come, as they

* More likely females.—ED.

frequently do, in their armies of countless thousands, had found the poor bird, killed him and either eaten or carried away almost the whole of him. My black boy said he was all right when he went to sleep at night, but in the morning pigeon and ants had disappeared, the latter leaving their unmistakable track behind. Later on I made some experiments with live frogs to see how quickly ants could dispose of them, and was astonished to see how short a time they took; indeed there is a story in Sierra Leone of a drunken man in a prison cell being killed and disposed of by ants in one night.

However, the next pigeon which the natives brought along was a most gorgeous one, a Green Fruit Pigeon (*Vinago sharpei*). My boy told me he would only eat Christmas seed, whatever that was, but when I instructed him to obtain some he quickly informed me that he couldn't, as it wasn't the season. So recourse was had to rice, but it was evident it was not suitable, and by degrees this pigeon sickened and died, though I obtained some Christmas seed towards the end. The natives allege, and it appears to be a fact, that this Pigeon will never fly to the ground, but will only walk to it down a twig, and will even break a twig on purpose rather than fly to the ground.

I had not been many hours at Rotifunk before finding the various trees in the compound were the resort of many hundreds of hard-billed birds. With a butterfly net and a lantern at night time my black boy and I could easily catch two kinds of finch, small and large respectively (*Spermestes cucullata* and *Amauresthes fringilloides*). At one time over thirty of these birds in a large tin lined cage, which a short time before had been the home of a young leopard, came in very handy as diet for two Owls. We could also sometimes catch a Fire-finch (*Lagonosticta minima*) in an orange tree and occasionally we got a Lime-bird (*Sitagra brachyptera*). My boy became very clever at using the butterfly net, and the resultant catches always were put in cages to wait till such time as coloured drawings could be made of them.

One day a native brought along a little wicker cage, and great was my delight in seeing it contained a large fierce but very

pretty owl (*Syrnium nuchale*). A bargain was soon struck, and the owl with difficulty transferred to a larger cage. My boy said he was so fierce because he was ashamed of having been caught, and stated that such birds would pluck out persons' eyes.

After a week or two in confinement he was much tamer, and, cutting his wing, I let him wander about the bungalow, when he soon became quite sociable and friendly. During the day he would sit under the bed or on a dark shelf in the room, and the night he generally spent in the pantry doing good execution among the rats, of which we had many. After having him thus for some three months, one night he wandered away, and, though I sent the boys round to make diligent search, all efforts to find him proved futile. A coloured drawing of this owl pleased the black boys immensely.

Another owl which came about the same time into my possession was a White or Barn Owl (*Strix flammea*), identically the same species as the British Barn Owl. The frame of mind of this bird was very different from that of the former owl, being untamable and shy. Both these owls had to be fed largely on the two kinds of birds mentioned previously.

Several live birds I also had in captivity for a short time only. Among them were a beautiful little Falcon (*Elanus caeruleus*), a Tree-duck (*Dendrocygna viduata*), a young Tiger-Bittern (*Tigrisoma leucolophum*), two Kingfishers, two Sun-birds or Banana-suckers, and a Moorhen. The last bird my boy put into one of the cages, but, having misjudged his size, he speedily escaped between the bars.

The nine months which it fell to my lot to spend at Rotifunk were rich in interest in the way of birds, both alive and dead. With what pleasure did I obtain the first Bee-eater, which there abounds, and the pretty little Sun-birds. To paddle down the Bumpe River in a dug-out canoe and observe the Eagles, Herons, Ducks and smaller birds in their native haunts I found a wonderful set-off against the insidiousness of so tropical a climate.

BIRD NOTES FROM THE ZOOLOGICAL GARDENS.

(Continued from page 184).

The following species were exhibited for the first time in 1902.

JAN. 11th.	9	Pileated Pheasant-tailed Jacanas, <i>Hydrophasianus chirurgus</i> .*	India.
FEB. 4th.	2	Wall-Creepers, <i>Tichodroma muraria</i>	.. Europe.
„ 28th.	1	Flycatcher Warbler, sp. inc.	.. China.
	3	Bengal Red-vented Bulbuls, <i>Pycnonotus bengalensis</i> .	British India.
MAR. 29th.	1	Brown-headed Stork-billed Kingfisher, <i>Pelargopsis guriul</i> .	„ „
	1	Eastern Calandra Lark, <i>Melanocorypha bimaculata</i> .	„ „
	1	Eastern Linnet, <i>Acanthis fringillirostris</i> .	„ „
	1	Pale Rose-Finch, <i>Rhodospiza obsoleta</i> .	.. Afghanistan.
	1	Glossy Calornis, <i>Calornis chalybeius</i> .	.. British India.
	1	Small-billed Mountain-Thrush, <i>Oreocincla dauma</i> .	„ „
	1	Large Pied Wagtail, <i>Motacilla maderaspatensis</i> .	„ „
	1	Ashy Wood-Swallow, <i>Artamus fuscus</i> .	.. „ „
	1	Bay-backed Shrike, <i>Lanius vittatus</i> .	.. „ „
	1	Indian Great Reed-Warbler, <i>Acrocephalus stentoreus</i>	„ „
APR. 22nd.	2	Grey Teal, <i>Querquedula versicolor</i> .	.. Argentina.
JUNE 2nd.	2	Striated Babbler, <i>Argya earltii</i> .	.. India.
„ 7th.	2	Blyth's Nicobar Parrakeets, <i>Palæornis caniceps</i>	Nicobar Islands.
„ 9th.	8	Black-headed Weaver-birds, <i>Hyphantornis melanocephalus</i> .	Africa.
	1	Black-headed Lark, <i>Pyrrhulauda melanocephala</i> .	West Africa.
„ 10th.	1	Sepoy Finch, <i>Hæmatospiza sipahi</i> .	.. India.
JULY 4th.	1	Racket-tailed Parrot, <i>Prioniturus platurus</i> .†	Celebes.
„ 16th.	1	Grey-winged Ouzel, <i>Turdus boulboul</i> .	.. India.
AUG. 2nd.	1	Verditer Flycatcher, <i>Stoparola melanops</i> ...	Himalayas.
„ 18th.	5	American Pochards, <i>Fuligula americana</i> .	.. N. America.
OCT. 11th.	1	Galapagan Barn-Owl, <i>Strix punctatissima</i> .	Galapagos.
„ 14th.	1	Indian Pitta, <i>Pitta brachyura</i> .‡	.. India.
NOV. 21st.	2	Varied Lorikeets, <i>Ptilosclera versicolor</i> .§	.. N. W. Australia.

* See Vol. VIII. page 95.

† See Vol. VIII. pages 230, 262, 277. It is intended to issue a plate of this bird in one of the forthcoming numbers.

‡ Coloured plate in Vol. VIII. p. 179, See also pages 8 and 257.

§ See Vol. IX. p. 178. A coloured plate of this species, drawn by Mr. H. Goodchild, will shortly be issued.

Among the interesting additions during 1902 were a white variety of the Weka Rail, six Ruddy Flamingos (*Phaenicopterus ruber*) from Cuba, two Mountain Ka-Kas (*Nestor notabilis*), the alleged Sheep-killing Parrot of New Zealand, a Great Bird of Paradise (*Paradisca apoda*, see *Avic. Mag.*, Vol. VIII. p. 245), a Spotted Eagle-Owl (*Bubo maculosus*, see Vol. VIII. p. 39), and two Eastern One-Wattled Cassowaries (*Casuarus aurantiacus*).

The following species bred in the Gardens during 1902:

- 3 Black Swans, *Cygnus atratus*.
- 5 Variegated Sheldrakes, *Tadorna variegata*.
- 3 Spot-billed Ducks, *Anas pæcilorhyncha*.
- 5 Hybrid Ibises (between *Eudocimus albus* and *E. ruber*).
- 2 Spotted Pigeons, *Columba maculosa*.
- 5 Graceful Ground-Doves, *Geopelia cuneata*.
- 1 Herring-Gull, *Larus argentatus*.
- 2 Jameson's Gulls, *L. novæ-hollandiæ*.
- 3 Glossy Ibises, *Plegadis falcinellus*.
- 3 Rosy-billed Ducks, *Melopiana pepsaca*.
- 2 Swinhoe's Pheasants, *Euplocamus swinhoii*.
- 1 Argus Pheasant, *Argus gigantens*.

CORRESPONDENCE, NOTES, ETC.

THE MISUSE OF THE MEALWORM.

SIR,—May I be permitted to make a few remarks with regard to Mr. Phillipps' note (p. 144) at the foot of my article on the Ruff, in which he states: "Mr. G. C. Porter does not believe in the misuse of the mealworm, which is just as he thinks fit, but his arguments to the contrary are not convincing, etc."

About last Christmas time, I visited the London Zoological Gardens, and curiously enough, noticing several of these birds had not yet shed all their nuptial plumage, I sought the obliging keeper of the Western Aviary and asked him how he accounted for it. He stated that it was a most unusual occurrence, and in his opinion, the abnormal season we have just experienced would amply account for it.

Now this was exactly my opinion, and I would humbly submit that this retaining of the ruff is not caused by the food supply, as Mr. Phillipps supposes, but by the weather. The Ruffs in this Western Aviary get very few, if any mealworms, yet several of them have almost exactly the same

plumage as my bird ; in fact, the resemblance in some cases is quite striking. How does Mr. Phillipps account for this ?

My Reeves are perfect, and they have the same treatment as the Ruff, so why should not the same management suit the Ruff equally well ? I have had one Reeve for about two years, but only procured a Ruff and another Reeve in May, when it was too late to think about breeding them.

Mr. Phillipps states that the Ruff is an unmitigated nuisance owing to the way he constantly and unceasingly bullied other ground birds. My bird seldom attacked any thing else, although kept with Land and Water Rail, Porphyrios, Quail, and other ground birds. Sometimes in a scramble after those unwholesome worms he will so far forget himself as to give a peck at some bird who is appropriating more than his fair share. With the Reeves it is different, he has to assert his authority over them with a firm hand.

The Ruffs at the Zoological Gardens very seldom attempt to molest anything, and the keeper states that their pugnacity is very much over-rated, so I think Mr. Phillipps' bird must be exceptionally quarrelsome.

To cut a few feathers from one wing is no hardship to the birds, and although they can still fly, they do not injure themselves as they would do if the wings were uncut. It is a question in our cat infested neighbourhood of a clipped wing or a bleeding scalp, and, personally, I prefer the former. I really cannot see that it would be any improvement to clip the tips of both wings when one answers the purpose equally well and is quite invisible.

No doubt it is great presumption on my part to differ from so experienced an aviculturist as Mr. Phillipps, but I simply stated my experience.

G. C. PORTER.

[Will Mr. Porter be so kind as to read his own Article and my Note a little more closely. I may add, to make my meaning more clear, that I do not suggest that it is not often *necessary* to cut the wings of a ground bird. There are *many* advantages in shortening both wings evenly. Amongst others, such a bird can still fly evenly, prettily, and happily, which the bird with one wing cannot.

I do not know if the Ruffs at the Zoological Gardens are pinioned. If they are (I do not say that they are), that will be sufficient to account for their quietness and late moulting. As Mr. Porter's Ruff has had one wing cut, and has been in his possession not longer than since last May, not even passed a spring with him, he has not yet had time to observe the character of the bird.

I am in great hopes that Mr. St. Quintin will shortly give us an account of his Ruffs and Reeves, which "have never seen a mealworm . . . the males go in and out of colour to the full extent, and at the proper season."—R. P.]

GREY PARROTS.

SIR.—If Mr. Speed could induce the Anglesey farmer to let the wings of his Grey Parrots grow, he would find they would not fly away, and perhaps they might breed like Mr. Buxton's.

F. G. DUTTON.

INSTINCT AND NEST-BUILDING.

SIR.—Please accept my best thanks for the interesting account of the *Estrilda*. I wrote to . . . who says that I shall find what I want in Lloyd Morgan's *Animal Instinct*, and he adds, "Greenfinch egg hatched under Canary built normal nest. Young Bullfinch taken very early did same." So it seems to be true that they *can* build normal nests († by hereditary memory without parental instruction. GEO. HENSLOW.

The account referred to was that of a young aviary bred Cordon Bleu (*Estrilda phœnicotis*) that built his first attempt a normal nest* in my aviary notwithstanding that his parents had not done so, and have never done so to this day, although nesting three or four times every summer. A "popular" account of the rearing of this young Cordon will be found at p. 141 of Vol. V., the nest being referred to in the last paragraph.

From Lloyd Morgan's *Habit and Instinct*, where the matter is thoughtfully and ably dealt with, we quote the following (p. 235 *et seq.*):—

* Mr. Jenner Weir, writing to Darwin in 1868, says: "The more I reflect on Mr. Wallace's theory, that birds learn to make their nests because they have themselves been reared in one, the less inclined do I feel to agree with him It is usual with canary fanciers to take out the nest constructed by the parent birds, and to place a felt nest in its place, and when the young are hatched and old enough to be handled, to place a second clean nest, also of felt, in the box, removing the other. This is done to prevent acari. But I never knew that canaries so reared failed to make a nest when the breeding time arrived. I have, on the other hand, marvelled to see how like a wild bird's the nests are constructed. It is customary to supply them with a small set of materials, such as moss and hair. They use the moss for the foundation, and line with the finer materials, just as a wild goldfinch would do, although, making it in a box, the hair alone would be sufficient for the purpose. I feel convinced nest-building is a true instinct."

This view of Mr. Jenner Weir's is based, it will be seen, on personal observation which is well to the point. Here is another piece of direct evidence. Mr. John S. Budgett, a careful observer, placed in 1890 a greenfinch's egg under a canary, and this in due course was hatched, the young bird proving to be a hen. In the following autumn he bought a caged bird,

* I have the definite statement in my Bird Journal that, on 13 May, 1899, "Young male busy building with hay in poplar," and, on following days, "Still building in poplar."—R.P.

a cock, probably of the same year, and in the succeeding spring turned them out into an aviary with furze and box bushes in it. Materials of suitable kind were supplied—twigs, roots, dried grass, moss, feathers, sheep's-wool, and horsehair. The hen soon began to build her nest, while the cock did not seem to take the slightest interest in her proceedings. Mr. Budgett never saw him with a twig in his mouth. In a few days she had finished her nest, and Mr. Budgett having sought and found several wild greenfinches' nests, made careful comparisons. Taking them as a whole, he says, the aviary nest was like the wild ones in every particular, made of wool, roots and moss, lined with horsehair. A second nest which the aviary greenfinch built was also perfectly typical.

In the same year Mr. Budgett reared from a few weeks old a young hen bullfinch, and kept it in a cage till the next spring, when he bought a cock, probably an old bird, and turned them together into the aviary. The hen soon began to build, and finished her nest in about four days; but she used neither roots nor twigs, of which there was a plentiful supply. The nest was composed of nothing but dried grass, with a little wool and hair. She laid therein five eggs, two of which hatched, but the little birds soon died. She then began another nest, this time a typical bullfinch's nest of fine twigs and roots lined with horsehair. Here five eggs were again laid, all of which were hatched, and three reared. She also built a third nest, which was perfectly typical of her species.

Some birds build their nests true to type, without opportunities or with but the slenderest opportunities of imitation or instruction. It appears to me that the evidence before us justifies the conclusion that nest-building in definite ways is an instinctive activity; but that it is modifiable by individual experience. Whether the modifications are inherited we do not know. It may be well to note how largely the performance of this activity is due to internal impulse, the external stimulus being perhaps afforded by the sight of the requisite materials.

Intelligence is so individual a faculty, enabling the organism to adjust his life to his own special surroundings, that it is difficult to see how, out of the somewhat divergent individualism to which intelligence tends, there could come that stereotyped uniformity which the nests of any given species present. Imitation would no doubt tend to uniformity, but here, again, it is difficult to see why a bird should imitate the nests of its own species, and not the equally good or, perhaps, better nests of an allied species.'

I had not intended adding anything to the foregoing; but, since writing, I have been recommended to read Mr. Charles Dixon's *Birds' Nests; an Introduction to the Science of Oology*, where the subject is dealt with in the "Introduction." I am surprised and disappointed at the views and conclusions I find expressed there, and desire to state most emphatically that I do not agree with them.

I commenced birds'-nesting (under my father's guidance, who was sportsman, field-naturalist, geologist and botanist) as soon as I could toddle—more than half a century ago—and bird-keeping not much later; and there is hardly an inland British bird with whose nests and eggs and general habits I am not intimately acquainted. And I have had in captivity, in my dining-room, in birdrooms, and in the garden (an open garden, covered over with wire-netting, kept as natural as possible, but with various artificial shelters), a vast number of different species from practically every clime; and as I watch them and their ways day by day, year in and year out, I find it impossible to help feeling absolutely certain that birds, however young and inexperienced, and with none of their own species about them, have a strong natural inclination and impulse from within (call it what you will) to court after the manner of their species and to construct nests true to type; and with me, in their first efforts, they have almost invariably built normal nests *as soon as they have been loosed into the garden*, although not always previously. And I also almost invariably find that, sooner or later (some species learn readily, but others are remarkably tenacious and conservative, and extraordinarily slow to depart from the ways of their ancestors), after having been exposed to, and had nests ruined by, cold and wet, and having found out the advantages of shelters and cosy rain-proof nest-boxes, they have *discarded* (I do not say *lost* for they sometimes revert to them) their original modes of nesting, though not of courting, and have adapted themselves to the circumstances of their surroundings. A nest suitable for a hot climate, built in a position which would be proper in a country where sun, not rain, is the order of the day, is usually quite out of place in an exposed aviary in the United Kingdom, especially when we take into consideration that many of the birds themselves are delicate and incapable of bearing cold and cold-wet.

More than five years ago, in a light and airy mood, and therefore all the more valuable as being wholly unbiassed, I wrote *How the Birds learn; or, Nesting under Difficulties* (Vol. III., p. 174), in which I gave the story of a pair of Zebra Finches (*Taeniopygia castanotis*), how they commenced by building normal nests and ended by breeding in a sheltered box. One of the curiosities of the story is that these birds commenced housekeeping in an *open*, instead of in a *domed* nest after the manner of their kind as previously exemplified in British aviaries and birdrooms. When I looked over this account last night, I was much disturbed, for it seemed to be opposed to my own opinions as expressed above. I forthwith consulted Campbell's *Nests and Eggs of Australian Birds*, published in 1901, long after I had written my little article, in which I find, at page 484, "They often start laying as soon as the foundation of the nest is placed in position, and keep on building and laying until both operations are finished;" and, "Mr. Wells found a Wedgebill's nest near our camp which had been appropriated by a pair of these Finches. It contained one egg when first

discovered, but before the clutch was completed the birds had finished roofing it over."

It will be seen, therefore, that, even in this irregular peculiarity, the Zebra Finches, the only specimens I had at that time, followed in the footsteps of their Australian forefathers.

I should add that birds which have been in the house for quite a long time, and have nested and even reared young in artificial nest-boxes, will, when introduced into my natural garden aviary, proceed to build normal nests in normal sites, and will not take advantage of the shelters and boxes for nesting purposes until after they have undergone the uncomfortable experiences of wind and rain already alluded to.

REGINALD PHILLIPPS.

SIR,—I have already proved that both Canaries and Bengalese, when turned into an aviary with growing shrubs, instinctively build nests of the same type as those which their remote ancestors built; although, for centuries, these birds have been accustomed to build in boxes, in which they had no weaving to do. In both of these cases no instruction was, or could have been, given to the architects. Prof. Henslow will find these facts recorded in the 'Zoologist' for July, 1902, p. 258.

A. G. BUTLER.

SIR,—In reply to Rev. Prof. Geo. Henslow's interesting query under this heading, I would like to quote several pages of Rev. J. G. Wood's "Man and Beast," but it would take up too much of the Magazine's space. I will therefore confine myself to quoting only a paragraph, as follows:

"Though the young pass their first few weeks inside the nest they do not see the outside, neither can they possibly learn from their parents where the materials were obtained and the mode of putting them together. Each species moreover adheres to the habits of its kind, so that a Chaffinch if bred in a Redstart's nest, would build the nest of a Chaffinch and not that of a Redstart. There have been countless generations of Cuckoos, but although every one of them was bred in the nest of a foster-parent not of its own species, not one of them has learned to build a nest for itself, but when it becomes a mother, is taught by instinct to lay its eggs in the nest of some other bird.

"Take the case of insects. Instinct teaches the silkworm to make its cocoon, to wait there until it is developed into a moth and then to force its way into the world. It has never seen a cocoon before, so that it could not learn by imitation. Its mother died long before it was hatched, so that it would not learn by instruction. But taught by instinct it forms its cocoon exactly as did its parents whom it never saw, and as will its offspring whom it never will see."

As to facts—Canaries have been bred in cages for generations and

have been provided with artificial nests lined with linen and cotton wool to nest in—at least this is the way in this country, and my Canaries were born in such breeding cages where they had no chance of building for themselves. But as soon as I turned them loose in my birdroom, well furnished with bundles of feathers and bushes, they have discarded every artificial structure and have built nests of grass and hay, lined with feathers and cotton wool, round open nests of the shape of that of the Chaffinch—Who has taught them? No doubt similar facts will occur to many. I have no doubt that instinct teaches birds to build nests, while I am quite as sure that animals also possess reason—and it is generally in cases when they act contrary to instinct that their power of reasoning is shown. Many facts could be brought to prove this, but I have already taken up too much of your valuable space.

GIULIE TOMMASI.

A CROSS BETWEEN A MANNIKIN AND A CAPE CANARY.

Dr. Greene sends the following letter from a correspondent.

SIR,—A few years ago I possessed a large Crystal Palace dome shaped aviary, that could be divided into three partitions. At that time I kept all kinds of Spice Island birds. Gradually they died off, some flew away, some fought and were killed. I replaced them by Canaries; of the old lot only a pair of Mannikins and a pair of Cape Canaries remained; these were of a deep yellow, with deep orange tufts on their heads, handsome birds. The cock bullied the Canaries, so I put the pair into one of the partitions, also the Mannikins, being quite inoffensive birds. As I wished the Capes to pair, I put a nest in, and covered the partition with paper, so that they might be undisturbed. A couple of eggs were laid and two birds hatched. After a few days I looked at them and found one killed, the other cast forth on the floor of the cage; it was living, so I put it under a Canary whose eggs were on the point of hatching. She and her cock took to this foundling and went on feeding it, even after they had a second brood, it was so backward and forlorn! For a long time it could not fly, as it had a wing injured by its fall from the nest. I then put it with the other Canaries, who also took pity on it, and it always slept between two, who seemed to guard and keep it warm. It was—in birds—the ugliest thing ever born. Imagine a Mannikin's head and beak, goggle eyes—it looked like an Owl—a short body, one shoulder higher than the other, the feathers and legs of a Greenfinch. It had no song, only an occasional chirp; it looked dull and seemed sorry for itself, otherwise it was well and happy. I never saw it take a bath.

With great regret I had to part with my birds, as their seed brought mice into the room, so I gave the poor little dwarf away; it soon pined for its companions and died.

WHITE DOB.

WAXBILLS IN A CAGE.

SIR,—I have a large open cage, $29 \times 16 \times 30$ inches, in which I am keeping a pair of Silverbills, a pair of Cordon Bleus, a pair of Avadavats, and four other small foreigners. The cage stands in a window with an eastern aspect, in a room which we use only for taking our meals in, and which is warmed with a thoroughly well ventilated gas fire which is turned off directly each meal is over and only relighted shortly before the next.

We feed the birds on white millet, spray millet, and canary seed, with a little fresh dried yolk of egg each morning, and give them plenty of clean sand and a bath, of which they are very fond, most mornings while we are having breakfast. During the winter we cover the cage with a light muslin cover after our last meal, to afford protection to the birds from draughts when the room is swept and ventilated in the mornings.

The birds appear generally healthy, but their plumage is far from satisfactory. The hen Cordon Bleu has not a feather on her head and the cock bird constantly picks her as they cuddle side by side, often giving her skin a pinch that evidently hurts her: his plumage is perfect.

An Orange-cheeked Waxbill shows similar tendency, and its feathers are rough, especially on the shoulders, and there is some bareness on the neck.

Another bird, whose identity I cannot determine, never having seen one like it before, has been in capital condition all last summer and autumn until recently. Now its plumage has gone very rough, and it sits most of its time lumpy and with its head "under its wing." I bought him last June, out of a mixed lot from a dealer who did not know anything about him, and he has been a strong vigorous bird, full of life and activity. He resembles a Lavender Finch that has lived in the Black Country, and got thoroughly smoked and grimed until the lavender has become a dirty grey and the claret of the wings and tail a dull reddish brown. He was in poor plumage and condition when I bought him, but soon improved and became sleek and well feathered. Just now he looks about as bad as he did at first. He has only one poor note of a guttural character, like the chirp of a Sparrow.

I feel sure the cage and birds are quite clean and their condition is not due to insects: there is no trace of irritation among them.

Can you help me to identify my bird, and advise me how I may vary the treatment so as to improve the plumage?

CHAS. L. ROTHERA.

The following reply has been sent to Mr. Rothera:

When Cordon Bleus or Orange-cheeked Waxbills are kept in cages they almost invariably amuse themselves by plucking one another's heads and necks: I do not believe there is any remedy but isolating the plucked specimens until the feathers have grown again.

In the case of both forms of Amaduvade Waxbills, and frequently in the case of Orange-cheeked Waxbills, this abominable propensity is common even in good-sized aviaries, especially if several pairs of the same species are kept together: it is the chief drawback to keeping these otherwise charming little finches.

If your unidentified bird agrees in size, and the colour of its beak, with the Lavender Finch, it can only be a melanistic example of that species; but if it is larger, and has a greyish beak, it is probably the Black-necked Waxbill (*Lagonosticta nigricollis*) from the Niger: but this seems unlikely.

When a Lavender Finch goes wrong, especially in a cage and after it has been some months in captivity, it is generally suffering from pulmonary disease, and is doomed: it is one of the most sensitive to cold of all the Waxbills, and three years is the longest period for which I have been able to keep it alive in my aviaries.

A. G. BUTLER.

ZOSTEROPS; BLOSSOM-HEADS; BUDGERIGARS.

SIR,—I should be greatly obliged by your advice on the following points:

1.—Would a pair of Zosterops live in safety in the same cage (a large one) with a pair of Blossom-headed Parrakeets and a pair of Yellow Budgerigars?

2.—Could I put my Zosterops in the garden aviary—say in May—and would they winter out-of-doors? My aviary has a closed in part, lighted by a window access for the birds, the closed part being gained by a square opening in the door. In the summer the door between the closed in and open parts of the aviary is open night and day.

3.—My Blossom-heads (young birds) seem to eat very little in proportion to their size—only a little millet and half an orange lasts them three days. They love melon seed, but I have only a little by me. They will not look at mealworms, nor will my Zosterops.

4.—The hen Yellow Budgerigar I have just bought as a mate for my yellow cock, who has wintered out-of-doors. I propose bringing him in to live with Mrs. Yellow till the warm weather sets in and it will be safe to start her out-of-doors. All the other Budgerigars in the aviary are green. None of them nested or laid an egg last year, when I started my aviary. The Budgerigars have a separate part to themselves.

M. WILLIAMS.

The following reply was sent to Mrs. Williams:

1.—The Zosterops would not be safe with the Parrakeets. The latter differ greatly in disposition, but some of them, especially Budgerigars, are spiteful, and nip and break the limbs of other birds.

2.—Certainly loose out the Zosterops in May when the east winds have departed. I cannot advise you to attempt to winter them out-of-doors.

3.—The Blossom-heads are frugal livers. Let them have canary, millet, and spray millet, and any simple fruit they may take a fancy to. Give them a *little* plain biscuit crumbled up small, and a few *good* raisins. The *best* Sultanas are the most suitable; it is wise to cut up the large raisins, but, whichever you give, see that they are *clean* and good.

4.—The Budgerigars are such free breeders that I fear there may be something wrong. Read Miss Brampton's "Notes on Breeding Budgerigars" which appeared in December, 1901, at page 26 of Volume VIII.

REGINALD PHILLIPPS.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case. Domestic poultry, pigeons, and Canaries cannot be dealt with. No replies can be sent by post.

BRONZE MANNIKIN. (The Hon. Lilla de Yarburgh Bateson). Was absolutely well until yesterday; it panted dreadfully and breathed with difficulty; became better and ate well; to-day it began to pant again and died. [Pneumonia was the cause of death].

Hen ZEBRA WAXBILL. (Mrs. Maxwell Sherston). Looked puffy for some days; fed on millet, white and spray, and fresh green food occasionally; found dead this morning. [Enteritis. During frosty weather be careful of the green food].

PARSON FINCH and LONG-TAILED GRASSFINCHES. (Mr. Mathias). Parson Finch has been unwell for some time, the other two have been apparently perfectly well; kept in heated aviary, the temperature averaging 50 degrees. [Parson Finch died of pneumonia. Long-tailed Grassfinches died of enteritis. In a heated aviary care should be taken that the drinking water should not be of too low a temperature, and during cold weather care should be taken that no frosted green food be given].

BICHENO FINCH and hen GOULDIAN FINCH. (Mr. T. N. Wilson). [Both birds died of pneumonia. Bicheno Finch was a hen].

HANGNEST. (Mr. J. Watson). [Bird died of apoplexy].

BUDGERIGAR. (The Hon. Lilla de Yarburgh Bateson). Seemed quite well until a week ago, when it slept a great deal and ate very little. I tried Parrish's Food in the water. [Your bird had a fit at first, there being an old blood-clot on the brain: it had another one much more extensive, which proved fatal. It was very fat. Many of the Parrakeet tribe die in fits when they do not have much exercise, and Budgerigars are by no means exceptions to the rule].

PINTAILED NONPAREIL. (Mr. G. C. Porter). [Pneumonia].

BLACK-HEADED GOULDIAN, hen. (The Hon. Mrs. Carpenter). Purchased a week ago; never looked very lively; got gradually worse. [Cause of death was concussion of the brain, caused probably during transit to you].

BLUE ROBIN, hen. (Mr. Mathias). [Bird died of apoplexy].

LAVENDER FINCH. (Miss Jardine). [Apoplexy. There was a large clot of blood on the brain].

CUTTHROAT and GOLDFINCH. (Miss Alderson). [Both died of concussion of the brain by direct injury to the skull. Either the Senegal Parrot or the Russ's Weaver might be the culprit].

PARSON FINCH and CUTTHROAT. (Rev. R. H. Wilmot). Parson Finch I only had a week; the day she died she seemed sleepy. [Enteritis was cause of death. Cutthroat: inflammation of oviduct, due to retention of broken egg].

ROSELLA PARRAKEET. (Captain G. Rice). Appeared quite healthy just before it was found dead. [Apoplexy was cause of death].

GREY WAXBILL and BRONZE MANNIKIN. (Lady Carnegie). [Both birds died of pneumonia].

ARTHUR GILL.



BLUE-BEARDED JAY.
Cyanocorax cyanopogon.

From living specimen in Dr. Butler's aviary.

Mintern Bros. imp.

Avicultural Magazine,

BEING THE JOURNAL OF THE
AVICULTURAL SOCIETY.

New Series.—VOL. I.—NO. 7.—All rights reserved.

MAY, 1903.

THE BLUE-BEARDED JAY.

Cyanocorax cyanopogon.

By ARTHUR G. BUTLER, Ph.D.

Early in the year 1895 a fair number of specimens of this beautiful Brazilian Jay came into the British Bird-market. Our member, Mr. J. B. Housden, purchased, I think, seven examples; one of which came into my possession, and is still in admirable health and spirits.

According to the late Dr. Carl Russ, this species is rare in the German market, and is only imported singly; it was first received in the Zoological Gardens of London and Amsterdam in 1864.

Burmeister tells us but little respecting the wild life of the Blue-bearded Jay; he says it has the same habits as the European species, feeding upon insects and seeds, more particularly of forest trees. From what Mr. White says of the allied Pileated Jay, it is probably more like our Magpie in its inquisitive behaviour, and its liking for the vicinity of human habitations.

I fancy that the English Jay would soon be in a bad way if fed only upon insects and seeds; and the same may be safely concluded in the case of *Cyanocorax*. The former, as we know, feeds upon worms, spiders, insects, eggs and young of small birds, probably mice and other small rodents, berries, acorns, beech-mast, and nuts. I have no doubt that the species of *Cyanocorax* do the same.

In captivity not only Jays, but all members of the family

Corvidæ, are liable to receive more raw meat than is good for them. When this is the case, the birds suffer from relaxed bowels, cramp, fits, and a short life. I think it probable that this was the reason, rather than their condition when received, why four specimens of this vigorous bird which reached the Calcutta gardens in November, 1888, "died within a month or two of their arrival."

When "Jack," as I call my bird, came into my possession, he was rough in plumage, dirty in feather, with the underparts stained of a buffish tint like the specimens seen in collections of skins. It is probable that this staining of the snow-white feathers in cabinet specimens is acquired by the birds squatting upon natural branches after washing; since it does not appear in examples which moult in captivity, and are properly looked after.

At first Jack was very wild and nervous; and as I was, for a time, obliged to keep him in far too small a cage, he was somewhat offensive. Later, I wired in the sides and end of a narrow staging at the end of my conservatory, thus forming a flight cage about five feet six inches in length, two feet in width, and 31 inches high; two perches cross this cage at a height of about 20 inches from the ground; one towards each end, so as to allow of a short flight; and two metal trays slide in from front to back, one for sand, the other for shingle; upon the latter the large water-pail is placed, and upon the sanded tray is his pot of food.

The staple food provided for this and my English Jay consists of crumb of stale household bread, powdered sweet biscuit, yolk of egg, Abrahams' food for insectivorous birds, and ants' eggs, thoroughly mixed together and slightly damped. Once a week both birds receive a piece of raw beef, about a cubic inch, cut up small. In addition I give all mice caught in the traps*, young birds thrown out of nests or deserted eggs, of any birds nesting in my aviaries; cockroaches in plenty, an occasional mealworm, spiders, rarely worms; also fruit, left by the other birds, grapes now and again, nuts, biscuit, or sponge

* I have had none to catch for the last five months, so they have to do without them.

cake if handy. As Jays delight in washing, it is hardly necessary to say that both birds are generally perfect in plumage, and never know what it is to feel in the least degree unwell.

Although I only give dead mice to Jack, he once dropped upon a stray youngster which was foolish enough to enter his cage; and then I am sorry to say he displayed the cruelty inherent in his savage nature; for, instead of killing the unfortunate little beast with a blow on the skull, as some sanguine students of Nature would like us to believe that all predacious birds do, he simply held it between his feet, and pulled off its limbs and swallowed them one at a time; nor could I get at him to interfere, so I had to console myself with the hope that the victim's sufferings were not very acute; they were certainly soon over.

When a dead mouse is given, it is always held between the feet, not grasped by the claws after the manner of a hawk. Generally the abdomen is first attacked, the powerful bill being brought down with unerring precision repeatedly upon one spot, until the skin is pierced; then the latter is torn laterally, the entrails are dragged out, the liver is eaten, and after the whole of the interior of the body is devoured, the skull is cleared of skin, broken by blows of the bill and the brains cleaned out; the skin is then dropped, the legs being picked out and eaten later; it seems strange therefore, unless it was for the cruel satisfaction of hearing its victim squeak, that the legs of the living mouse should be eaten first.

As I observed before, Jack was very wild when I received him; but gradually, as he got to know and value me, he became exceedingly tame and confiding. On two occasions, when his upper mandible has grown too long for his comfort, I have simply called him, shown him a pair of steel nail-clippers, and (probably pleased with the bright metal) he has put his bill through the wire and allowed me to snip off the long point; all he did was to rub his bill once on the perch, and, remaining close to me, put down his head to have his crest tickled.

Jack is very fond of being tickled by me, either in the side, on the breast, or on the top of his head; he also allows

me to take hold of his bill between my finger and thumb, though he does not like his toes to be touched, but if anyone else attempts to tickle him, he turns round and digs at the end of the forefinger with all his might; and some visitors don't seem to like this, though it really does not hurt much.

When Mr. Grönvold came over to make the drawings of my Blue-bearded Jay to illustrate this article, he wondered how he was to get into line with it, and get it steady enough for his purpose; but I assured him it would be quite easy. Having seated the artist on a low stool in line with the outer perch, I simply called "Jack," and the bird flew to me at once; then I only had to tickle his side to keep him quiet as long as I pleased (I don't think it was far short of an hour).

To get the bird in position for the smaller sketch is equally easy; you only have to give him a seed of Indian maize, and he places it between his feet and hammers away until he is tired, lets it drop for a minute, then replaces it and goes on again.

If I notice the other birds without stooping to pet Jack, he comes to the front and utters his loud metallic barking notes to call my attention to him; then he bows over the perch dancing, and crooning a ridiculous little song which sounds most comical coming from so large a bird. A similar song and a stamping dance are mentioned by Mrs. Olive Thorne Miller in the interesting account of her pet Blue Jay, in her delightful little book called "In Nesting Time."

As a pet, this bird could hardly be surpassed; it is not only confiding and interesting, but very beautiful; its jet black, snow-white, and greyish brown plumage; the lavender-white crest-like nape-plumes behind the true crest, the varied blue patches on the face, and the brilliant golden yellow of its eyes, produce altogether one of the most charming combinations to be found in bird-life; and when kept in a large cage in a conservatory it is not offensive, provided that the remains of dead mice are removed as soon as done with. The fact that I have already had my bird for eight years, shows that it is not a short-lived species.

NOTES ON DOVES.

By ROSIE ALDERSON.

PART IV.

(Continued from p. 133).

THE RUFOUS DOVE.

Geotrygon montana.

This pair of doves came to me under this name, but I do not know if it is the correct one or not. I believe they came from the West Indies, and their worth is from 30/- to 35/- a pair.* In shape, the Rufous is something like the Bleeding Heart, short and sturdy, and with long legs. I have noticed both birds flirt the tail up and down when alighting on a bough. In colouring, the cock has a grey forehead, olive brown back, and vinous breast, and has a general look of vinous colour all over him. The hen is a larger bird, and quite different in colour. She is a greyish brown, with beautiful metallic green reflections on the neck, etc. I sometimes wonder if they are really the same kind of dove or not. They take little notice of each other, but to-day I saw the cock dressing the hen's feathers and trying to rouse her. She has, I think, got a little cold, and I must put them in a warmer place for the winter. Both the Rufous Doves are great favourites of mine, and they have also the merit of being very quiet, inoffensive birds.

THE VIOLET OR WHITE-FRONTED DOVE.

Leptoptila jamaicensis.

I have had two pairs of these very lovely doves. Neither of my first pair could fly, each having a rather drooping wing, and one of them, after I had only had them a few months, broke its leg and died. I got a third specimen, a magnificent bird, but he would not take to the poor little survivor. This new bird had been hand-reared by the natives. I wonder if it can be a general rule that *any* bird, reared either by hand or in an aviary, is *finer* than a wild specimen, merely because it has no lack of

* Since writing the above I have seen Rufous Doves offered at a lower price, but I do not know if they were of the same species.—R. A.

food or nourishment when young and growing? My two young Bleeding Hearts, for instance, that I bred this year, were soon far finer birds than either of their parents. None of my three wild-caught Violet Doves can equal this hand-reared bird. I wrote to the friend who had kindly supplied me with these doves to see if he had still another. Fortunately he had just one. It was, he said, healthy, but in terrible plumage, having only just been received, and had been plucked on the voyage by some other bird. I said I would gladly have it, and so the dove was sent to me. It was certainly almost featherless, and when I put my hand in the hamper, it gave me quite a shock to feel only flesh, and hardly any feathers. This same bird is now in perfect plumage. I kept her to herself until she was in good condition, and then put her in the same aviary as my hand-reared bird. The poor fellow, who had been looking very lonely and drooping for some months, took to his new companion at once. They had several nests last season, but though the eggs were fertile, and they sat well, I was not fortunate enough to rear any young ones. I suppose a good pair of Violet Doves would be worth at least 50/-, as they are very rare, and all I have known were imported privately.

The colouring of this dove is very pretty. The back is olive green, the breast creamy white, the front of the head greyish, and the neck gorgeous with metallic colours, which look most beautiful when the bird coos and bends his head to the ground, as if he were making a most profound obeisance. There is a patch on each side of the bird's breast of light maroon, from which I suppose its name is derived. In shape the Violet Dove is rather sturdy, with long legs. When once in condition it always seems to look in good plumage, but it is very lightly feathered, and the least touch seems to bring the feathers out. Both my birds delight in cut up pea or "monkey" nuts, and always look up for some when I go into the aviary.

DELALANDE'S FRUIT-PIGEON.

Vinago delalandei.

The only specimen I have ever seen of this lovely Fruit Pigeon belonged to a friend. It was sent her by a

brother from Africa, and the mate to it died on the voyage. My friend had no aviary, and for some time she kept "Chib-warra" in a cage. She told me he loved to be put where the firelight fell on him, evidently thinking it was sunshine, and would now and then make a curious whistling sound. But after a few weeks the pigeon began to be ill, and my friend, fearing he would die, asked me if I would take him to do what I could for him. Poor "Chib" arrived one snowy day, and I did my best to nurse him back to health, but he grew gradually weaker. At last, in despair, I tried him with some of Mr. Dixon Jenkinson's pills, though in much doubt as to how they would suit a *Fruit* Pigeon. They seemed to do the bird a great deal of good, and had I given them earlier I think he might have got better, but it was too late to save his life. "Chib" was a handsome bird, bright green in colour, with bright yellow on his underparts and thighs. He had pale blue eyes, and very scarlet legs and feet. The shoulders were washed with a purple mantle. Half his beak was grey and the other half bright red. "Chib" fed on boiled maize. He used to hop in a very curious way, and though so handsome was rather a clumsy bird.

THE DAMARA TURTLE-DOVE.

Turtur damarensis.

I have given what I conclude is the correct name for this dove—as it agrees with the description given in the British Museum Catalogue of Doves and Pigeons—but I cannot be sure it is the right one. I had four of these birds sent me in a consignment of doves from Africa. Three of them, I believe, were cocks, the fourth a hen; but the sexes seem alike in plumage. I have one pair left, and they are pretty gentle little birds. In size about the same as a Senegal Dove, and in colour soft shades of grey and white, with a black collar half way round the back of the neck, and full dark eyes. The breast is almost white and the back brownish grey, while the feet and legs are crimson, as is the case with most other doves. In that quaint and interesting old book, "The Dovecote and Aviary," by the Rev. E. S. Dixon, there is a curious old Arab legend as to the reason why the feet and legs of doves and pigeons are

almost invariably red or crimson. The story runs that the first time the dove returned to the Ark it gave no indication as to the state of the earth except by the olive branch in its beak. The second time, however, that it returned, its feet were covered with red mud, which proved that it had actually walked on earth that was *above* the level of the waters. To record the event Noah prayed that the feet of doves might ever after continue to be red, and so from that day to this these birds have had red feet.

My pair of Damara Doves began to nest soon after they came to me last March. The hen laid many eggs and sat well, but always some accident occurred, either the eggs were broken or the young birds came to grief. Once I reared the young ones until they were out of the nest. They were exceedingly pretty, such soft, gentle-looking little creatures, and much more graceful than the generality of young doves. One poor little thing was found pecked to death early one morning, the supposed culprit being a bad-tempered Necklaced dove, who had a great dislike to the young one's parents. The second young bird I also lost shortly afterwards, but hope this year to be more successful.

THE DIAMOND DOVE.

Gopelia cuneata.

This is a very tiny dove compared to those previously described. It is a very graceful little bird with a long slender tail. In colour ash grey with white spots dotted over the wings. Some specimens I have seen had almost a brownish tinge, but the ash grey colouring is much the prettier shade. The eyes, and a patch of bare skin surrounding them, are red, which gives just the touch of colour needed to complete the beauty of this attractive little dove. I have seen a pair of Diamond Doves offered for sale at about 15/-, but this is an exceedingly low price, and the usual one is from 21/- a pair and upwards. My pair of Diamonds built many nests and raised my hopes time after time, but alas! my nests were only for "squatting" in. The little couple would sit on one of these structures for weeks at a time, until I really began to think they *must* have some eggs, but each time I was disappointed. The cock Diamond Dove looks very

pretty when he is displaying his charms to the hen, raising his tail in a fan, and bowing up and down while he coos.

THE PASSERINE DOVE.

Chamæpelia passerina.

This is a pretty little short-tailed ground dove from the West Indies, costing about 10/6 a pair. There has been so much variety in the colouring of the different specimens I have had that I find it rather difficult to describe the bird properly; perhaps the most commonly seen kind is of the shade of vinous pink, with dark tips to the feathers, giving the bird a speckled look. One Passerine I have just now (a cock) is of this shade, while the hen has quite a brown colouring. One very handsome specimen I once had was almost black. Of course the lighter the ground colour of the bird the more distinctly the dark tips to the feathers show. Last year my Passerines made a very pretty round nest of hay, on the top of a wooden bracket, and the hen laid one egg. The Passerines were very important over it all, and sat so well, that I quite hoped to rear a young one, as the egg soon changed colour. The nest was in a very open position, and thinking to screen it a little I fastened up a few Scotch fir branches in front, though not in any way touching the nest. I watched my opportunity and did this while the hen was off, but to my disappointment she would not go back until I had taken down the branches, when she returned at once. Just a day or so before the egg was due to hatch, I saw to my sorrow the cock sitting beside the hen in the nest. My hopes sank, for I knew what it meant: he was eager to nest again and was trying to persuade the hen to leave the one precious egg. He succeeded in doing so, and in a few hours I had to admit the disappointing fact that the nest was deserted. It was all the more trying as the egg contained a very fine young bird just ready to hatch.

THE TAMBOURINE DOVE.

Tympanistria tympanistria.

For a long time I had wished for some of these little doves, but it seemed as if I should never have the happiness of

possessing any. Last March, however, three were sent me from Africa in the consignment I have alluded to before. Two were cocks, the third a hen, and all three are now in splendid health and plumage. The Tambourine is a sturdy little dove. In colour the male bird is dark chocolate with a pure white face and breast, and on the wings are several dark spots. The hen bird is rather lighter in colour, and the breast and face not nearly so snowy, but much greyer. My Tambourines stay high up in the branches in the shelter nearly all day, but seem to come out at night and roost in the flight in some fir boughs; they are very peaceable little doves, and decidedly a nice addition to an aviary. I have never seen any offered on sale, so do not know their value, but they are probably worth a good deal, as they only seem to be imported privately.

THE STEEL BARRED OR PICUI DOVE.

Columbula picui.

This little South American Dove is very pretty and dainty-looking, though the colouring is very quiet. It is grey on the back and head, shading into almost white on the face and breast, and a steel blue bar runs across the wing, but as this band is very dark, it does not do much to lighten up the colouring of the bird. This dove seems to be very seldom imported, and is one of those birds that one may have to wait for for months before one can find an odd bird to make up a pair. I have now, after much patient waiting, secured six specimens that I believe are three true pairs. It has taken me some years to do this, but my original pair still flourish, and are the finest of the three. Unfortunately the hens seem very delicate, and are much given to laying soft-shelled eggs, though they have a good supply of small grit and cuttle-fish bone in their aviary continually. This dove is worth 20/- a pair.

THE CAPE OR HARLEQUIN DOVE.

Æna capensis.

This is a very beautiful and elegant little dove, but it is also very lazy and inactive in an aviary. It is only imported

very seldom, and is worth about 13/6 a pair. The cock Harlequin has a black mask over his face and throat, and the same shade appears in the wings and long tail and the bands across the rump. The remainder of the plumage is soft brownish grey, and there are some white feathers in the tail. The beak is orange at the tip, turning to dull crimson at the basal half. The hen Harlequin lacks the black mask, and is much browner than the male bird. The flight is very graceful, but weak, and the bird really looks not unlike a large Swallow-tail butterfly when flying. I have never been successful in breeding this dove, though my hens have laid eggs. Unfortunately both my female birds are dead, one of them, poor thing, coming to a very miserable end. The bird had a knack of getting over on her back, and was then quite helpless and not able to right herself. Many a time she had been rescued, but one morning early she was found dead, having got over on her back, and no one had been by to save her.

THE DECEPTIVE TURTLE-DOVE.

Turtur decipiens.

Besides the doves I have mentioned I have two other kinds. One sent me by my friend from Africa, is a handsome bird, and has been identified by the Museum authorities as *Turtur decipiens*. I had four specimens, but two are unfortunately dead. In colour this dove is brownish on the back, lavender-grey on the head, shading into a beautiful pale vinous colour on the breast, and a black collar edged with a very narrow white line running round the back of the neck. The eyes are pale yellow, surrounded by a bare patch of red skin. *Decipiens* is a very attractive looking bird and is about the size of a Barbary Dove. Both my specimens are unfortunately very nervous birds.

This concludes the list of all the doves I have kept up to the present. There have been some lovely varieties in the market lately, beautiful Fruit Pigeons, Scaly, Geoffroy's, and others. I have not been fortunate enough to possess any of these, but I hope some of our members who have obtained them

will send some notes to the Magazine, as these are kinds of doves and pigeons about which little has been observed in captivity, as they are only occasionally to be had.

[Since writing the above I have added a pair of Scaly and Cinnamon Doves to my collection, but have not had them long enough to say much about them as yet.—R.A.]

REVIEWS, NOTICES, ETC.

ESSAYS AND PHOTOGRAPHS.*

This book is divided into two parts, the first dealing with the Canary Islands, and the second with South Africa.

The Canaries are now so popular as a winter resort that a book which deals with the natural history of the islands, and with the customs and habits of its inhabitants should be welcomed by many.

The author went first to Fuerteventura, a bare and desolate island, rarely visited by Englishmen and sparsely inhabited. The birds here are few, Hoopoes, Coursers, Stone Curlews, Shrikes, Ravens, and one or two others being more or less common; and the author managed to obtain some excellent photos of most of the species which were breeding at the time of his visit. It is no easy matter to conceal a camera close to a nest on the bare plain, where there is absolutely no cover, so successfully that the bird is not afraid to return to the nest, but this the author succeeded in doing, as the admirable photos reproduced in his book testify. Vilaptor, the highest village in Teneriffe, is richer in bird-life; here Berthelot's Pipit was abundant on the open ground, and the Blackcap and Canary were common in the wooded parts. Berthelot's Pipit occurs in all of the islands, but is particularly interesting, as being confined to the Canarian Archipelago.

Many birds familiar to us at home are represented in Teneriffe, such as the Blackbird, Chiffchaff, Black-cap, Green

* *Essays and Photographs. Some Birds of the Canary Islands and South Africa*, by HENRY E. HARRIS. London, R. H. Porter, 7, Princes Street, Cavendish Square, W.



CREAM-COLOURED COURSER
(*Cursorius gallicus*.)



ALGERIAN GREY SHRIKE
(*Lanius algeriensis*.)



Woodpecker, and Grey Wagtail. The Teneriffe Blue-tit is quite as lively as his English cousin, but he was not sharp enough to evade Mr. Harris' lens, and a beautiful portrait is the result. The Teydean Chaffinch is peculiar to Teneriffe, and was met with in the pine-forests on the higher slopes of the mountains, but it is a late breeder, and the author was consequently too early to obtain a photo of the nest.

In the second part of the book Mr. Harris takes his readers to South Africa, where many birds and their nests were successfully photographed. In the reeds that border the streams Weaver-birds are exceedingly abundant, and the observations on their nest-building will especially interest aviculturists.

The descriptions of the places visited and of the habits and customs, both of the people and the birds, are written with considerable literary skill, and the book, which is beautifully got up and printed, is throughout very interesting, and especially commends itself to those contemplating a visit to either the Canaries or South Africa. We reproduce on the accompanying plates a few of the photos from this book.

OPEN-AIR STUDIES IN BIRD LIFE.*

This volume is one of the "Open-air Studies" series which is being brought out by Messrs. Charles Griffin. The author is Mr. Charles Dixon, who is too well-known as an ornithological writer to need any introduction to our members. He informs us, in the Preface, that the present volume "has been written with the express object of furnishing a popular introduction to the study of ornithology by visits to British birds in their homes," and after a perusal of the book we have come to the conclusion that the author has very successfully achieved his object. The arrangement followed is somewhat novel, the book being divided into chapters dealing with the various haunts of the birds; thus one chapter deals with "The spacious air," another with "Woodlands," a third with "The sands and

* *Open-air Studies in Bird Life: Sketches of British Birds in their haunts*, by CHARLES DIXON. London, Charles Griffin and Co., Ltd., Exeter Street, Strand (1903). Price, 7/6.

mudflats," and so on. The result is a refreshing change from the strict order followed by the more purely scientific, and consequently somewhat dry, arrangement of the majority of works on British birds. But there is nothing in the least unscientific in the book, in fact the author has in many cases added particulars concerning the orders, families, etc., to which the species belong. The book has been written by a most careful observer and recorder of the wonders of bird life, and in a style which commends itself especially to those who love the woods and fields, who love to wander far from the madding crowd and to be alone with nature.

We can strongly recommend the present work to those who require an absolutely reliable, inexpensive, and very interesting guide to the study of British birds.

There is a coloured frontispiece as well as several beautiful process plates from drawings by Mr. Charles Whymper, besides numerous cuts in the text.

ROSS'S SNOW GOOSE (*CHEN ROSSI*) BREEDING IN CAPTIVITY.

In the current number of the *Ibis* Mr. F. E. Blaauw, C.M.Z.S. gives a very interesting account of the breeding of a pair of these rare Geese in his park at Gooilust, Holland. In the year 1900 an egg was laid by a solitary female of this species, and was exhibited by Mr. Blaauw at a meeting of the British Ornithologists' Club in March, 1901. A year later a second living specimen of the bird was obtained, which fortunately proved to be a male. The birds soon paired, and in May, 1902, the female made a nest which consisted of a slight depression in the soil, lined with dry grass and roots, under a bush in her enclosure. Five eggs were laid, and incubation lasted only 21 days, whereas the usual period with Geese is about 28 days. Mr. Blaauw accounts for the very short term of incubation by the fact of this species breeding very far north, where the summers are short, and consequently the birds have but a short period in which to complete the whole process of propagation.



YOUNG FISCAL SHRIKE
(*Lanius collaris*.)



CAPE WAGTAIL
(*Motacilla capensis*.)



WHITE-FRONTED SAND PLOVER
(*Ægialitis marginata*.)



All five eggs hatched, and the chicks are described as "of a yellowish grey, darker on the upper side and lighter below, and have, what makes them most conspicuously beautiful, bright canary-yellow heads, with the most delicate greyish sheen over them, caused by the extremity of the longer down-hairs being of that colour. The bill is black with a flesh-coloured tip. A little spot in front of each eye is also blackish. The legs are olive-green." Curiously enough, this description applies to only three of the chicks, as in the other two the part was *white* which in the others was yellow. Unfortunately none of these chicks was reared, one after the other getting something wrong with its breathing organs, and the last dying a fortnight after they were hatched.

Aviculturists will sympathise heartily with Mr. Blaauw over his misfortune in the loss of this fine brood of exceedingly rare birds, and will sincerely hope that better fortune may favour him in the coming season.

THE GIZA ZOOLOGICAL GARDENS.

Captain Stanley S. Flower, the director of the Zoological Gardens at Giza, near Cairo, sends us the Report on that institution for last year. The menagerie appears to be in a most flourishing condition. The birds numbered 526 specimens, comprising 112 species, on October 6th last, and amongst other interesting species are three specimens of the rare Whale-headed Stork, *Balænicæps rex*. Two specimens of this remarkable bird were received alive by the London Zoological Society in April 1860, and there is one living specimen now at Khartoum, but these and the specimens now in the Giza Zoo are believed to be the only examples ever kept in captivity. It is interesting to note that a daily list of the wild birds observed in the gardens is kept, and during last year the following species were noted:—Blue-throated Warbler, Roller, Turtle Dove (*T. auritus*), Rock Dove, Little Egret, Spoonbill, and Coot.

THE BLACK EMEU.

Dr. Graham Renshaw deserves the thanks of ornithologists for the trouble he has taken to bring to light all that is known of the long-since extinct Black Emeu of Kangaroo Island; and his article on this subject in the March number of the *Zoologist* is of great interest. The Black Emeu (*Dromæus ater*) was a little larger than a Bustard; brownish black in colour, and with a curious over-development of the plumage, "the elongated feathers hanging loosely about it, as if too ample for the body which they covered."

The history of the species is best told in Dr. Renshaw's own words:—"In 1803 a French scientific expedition under Captain Baudin landed on Kangaroo Island. Baudin himself took a great interest in natural history, and had sent a rich collection of specimens—both zoological and botanical—to the Jardin des Plantes only a few years previously. On one occasion he had the valuable assistance of Péron, the celebrated zoologist, and it is to the work of this expedition that scientific Europe is indebted for almost all its knowledge of the Black Emeu. Kangaroo Island was uninhabited by man, but abounded in the marsupials from which it took its name, and there were also a great number of *D. ater*—'Casoars,' as the Frenchmen called them. By a happy chance it was determined, if possible, to bring away some of the pigmy Emeus alive; had it not been for this haphazard resolution, the species we are now considering would probably never have been known at all to naturalists. Three birds were taken alive, and it speaks well for the intelligent care taken of them during the voyage home that they all arrived safely at Paris in 1804-5. One of these Emeus was placed in the menagerie of the Jardin des Plantes, where it continued to thrive for many years; the other two, with a zebra, a monkey, and a large collection of plants, were destined for the Empress Joséphine. The Empress's Emeus were sent to her residence of La Malmaison, and, at their death, one of them—indeed, probably both—was placed in the Jardin des Plantes Museum."

One or two living specimens seem to have reached London

about the year 1822, which were examined by Dr. Latham, who called the species "Van Diemen's Cassowary."

That the species was perfectly capable of semi-domestication in Europe there can be little doubt, as one of the specimens brought alive to France in 1804 lived in the menagerie of the Jardin des Plantes until 1822; this specimen was well preserved and mounted when it died, and is still in excellent preservation, as Dr. Renshaw's photograph shows, and probably quite unique.

The species has long been absolutely extinct, a squatter having settled on the island and barbarously exterminated both the Kangaroos and Emus.

THE HINDLE AVIARY, DARWEN.

The erection of aviaries, in public parks and recreation grounds, in which can be kept the hardier British and foreign birds, should be encouraged wherever possible, as they certainly form one of the best means of educating the public in natural history. It is a pleasure to have the opportunity of bringing to the notice of our Members the fine aviary, known as the "Hindle" Aviary, in Bold Venture Park, Darwen. This aviary was presented to the town in November, 1901, by Mr. and Mrs. F. G. Hindle, to commemorate their silver wedding. It is 50 feet long by 16 feet wide, divided into two parts, one of open wire-work and the other glazed. The descriptive account of this aviary and its inmates with which we are favoured is published by Mr. J. J. Riley, of the *News* Office, Darwen, at the very low price of one penny. It contains a short account of each species which is represented in the aviary, and photographic reproductions of coloured figures of the birds which are fixed outside the aviary to enable visitors easily to identify each bird. It seems a pity that the scientific names should not be given in the list, and that the word "variety" should be used instead of "species," and we are sorry to find that the Passerine Parrakeet is classed as a Lovebird, but these are minor details in a popular descriptive catalogue. We can only say that Mr. Hindle's generosity is worthy of the highest praise; and it is sincerely to

be hoped that ere long well kept aviaries may be a feature of many public parks and gardens.

The little monthly journal called *Hints*, the first number of which came into existence in October last, contains, besides much useful information on all manner of subjects, some well written and very interesting articles on birds by Mr. Watkin Watkins.. Those entitled 'How to observe birds,' 'How to attract birds,' and 'London Birds' are especially worth reading. We understand that the paper can be obtained at any of the bookstalls or from the Manager, 115, Chancery Lane, W. C. The price is one penny, monthly.

CORRESPONDENCE, NOTES, ETC.

NEW ZEALAND BIRDS; BRITISH BIRDS IN NEW ZEALAND.

The following extract from a letter from a bird-dealer in New Zealand (Christchurch) will be read by our Members with mixed feelings. It will be observed he regards the Canary as a native bird.

"Am very pleased to hear from you again, although I cannot do any business with you in New Zealand birds. For ten years I made a trade of them—they used to be plentiful; but now they are very scarce, so the Government has protected all except two kinds.

New Zealand birds are not good liverers, only the paroquets being seed eaters. The names of our native birds are as follows: Tui, Bell-bird, Paroquet, Robin, Canary, and a few smaller sorts purely insect eaters. Big birds: Kakapoo Parrot—cannot fly, Kiwi, Maori Hens, Kaka Parrot, Bush-bird, Keas or sheep killers, and native pigeons.

The paroquets *were* so plentiful they had to be shot off the oat crops in hundreds. I have not had a Kiwi for two years, but am told the dealers in the north get £7 each for them.

The English birds, which were liberated over twenty-five years ago, have greatly increased. Next month (February) we can catch fifteen dozen Goldfinches a day. One day last April I

caught seventeen dozen Redpolls, a day's walk outside of the town. Larks (English — natives have died out) — we reckon we do well if we get orders at 10/- a dozen, more often 6/-; Chaffinches any quantity; Greenfinches ditto; Hedge Sparrows the same. Thrushes and Blackbirds—we can get nothing for them. The same applies to Yellow-hammers, Buntings, and Grey Linnets.”

PASSERINE PARROTS AND NIGHTINGALE.

SIR,—I bought a pair of healthy Blue-winged Love-birds about three months ago. One went all bare on the head and has died, the other looks as if it was going to start going bare on its head too. Is it a catching disease? because I wanted to turn it out into the aviary in a few weeks. I have a Nightingale too that won't sing, I have had it since November; it is healthy and in perfect feather. It has little tiny growths at the edge of its beak where it opens, but they do not seem to affect it at all. It has all the appearance of a cock bird, but never utters a note. Food: best ants' eggs, hard-boiled egg, mealworms, Abrahams' and Century Food No. 1.

M. C. HAWKE.

The following reply has been sent to the Honble. M. C. Hawke:

It is possible that the birds may be victims to “surfeit” so-called, which generally affects the feathers of the head. The cure for this is to add five grains of Epsom salts and the same quantity of chlorate of potash to the drinking-water for one day only, to give plenty of green food if the birds will accept it, and to give the most simple seed-diet. I give two parts white millet to one part of canary, and a few whole oats (I am not sure that all examples eat the oats, but I have known them to be eaten).

Again, it is possible that parrot-lice may be the cause of the trouble, but it is not probable, because these pests generally attack the butts of the wings, back, and breast, but not the head. Spraying with quassia, or repeated powdering with Keating's Insect-powder, are the best remedies.

I should say that your Nightingale is either rather backward, being a young bird, or it is hand-reared, or it may be a hen. The food you give could not be improved upon, and if the bird is a wild-caught cock-bird, I should confidently look forward to its singing later.

Nightingales never quite lose the so-called “waxy-skin” or expanded margins, towards the base of the cutting-edges of the mandibles, which are characteristic of baby birds: possibly, therefore, the growths you speak of may only be this natural expansion of the edges.

A. G. BUTLER.

SEXUAL DIFFERENCES.

SIR,—Being asked recently, as I often have been before, how to distinguish the sex of the European Goldfinch, it occurred to me that I might perhaps get hold of better characters than those usually given, by comparing properly sexed examples and expanded wings of the same. Unfortunately I only possess one hen in the skin, and this exhibits the remarkable character of brown upper tail-coverts!

So remarkable a distinction from the colouring of the tail-coverts in male Goldfinches determined me to examine the series of skins in the British Museum. The following sexual differences are the result of my comparison of skins and wings :—

The male varies in size more than the female, as I well knew; one of my living examples being indistinguishable in size and colouring from normal Siberian specimens, though I purchased it as a Greypate from a bird-catcher, who netted it in Kent: at the same time the average cock Goldfinch is distinctly larger than the average hen, and has decidedly longer wings: the greater length being due chiefly to the better development of the second, third, fourth, and fifth primaries (counting from the front of the wing in the old style).

All the colours are brighter in the cock bird, the black of the wing being distinctly deeper and more glossy; the yellow belt of a narcissus, rather than primrose, colour. On the secondaries the yellow belt is broad throughout; it narrows somewhat on the inner secondaries, but it is not clouded as in the hen. The upper tail coverts in the cock bird are invariably white, more or less washed with buffish-sienna; those of the hen vary considerably; being, however, always distinctly browner than those of the cock bird.

All the white portions of the plumage are purer in the cock, the cheeks especially being much less stained with brownish: the blaze or mask is of a brighter crimson in the cock, but its extent appears to differ very slightly, and I think not constantly.

The form of the beak is very different; that of the male being much wider at the base and tapering much less gradually than in the hen, though slightly longer.

After examining the Goldfinches at the Museum, I thought it might be useful to look at the various groups of Starlings, to see whether they approached most nearly to the Thrushes or the Crows in their sexual differences. I found that, in total length, and in the relative formation of their bills, the sexes correspond with the Thrushes; only these sexual characteristics are far less marked, and in *Spodiopsar* they are barely distinguishable; a series of expanded wings would probably show more marked differences.

A. G. BUTLER.

PURPLE-RUMPED SUN-BIRD; GREEN-BILLED TOUCAN.

SIR,—Will you please let me know how to feed the Purple-rumped Sun-bird*, as I am thinking of purchasing one.

When I purchased my Green-billed Toucan† I was informed that, after death, the colour of the bill fades away. This, I think, must be wrong as the one I had kept its colour.

C. CASTLE-SLOANE.

The following reply was sent to Mr. Castle-Sloane:

The staple food for a Sun-bird should, in my opinion, be honey, which must be absolutely pure and extracted from the comb, because these birds are very apt to make themselves sticky when given the comb, especially when they first arrive, as they are then generally in a weak state. With the two I had I always put in a pot of insectivorous food, but I do not think they ever touched it. They were very fond of good grapes and small flies and spiders, but I think the two last should be given with great discretion, as they are very eager for them, and are inclined to eat more than they can digest.

I consider them to be very delicate birds, and requiring to be kept warm.

I should advise you to see them before buying, as, if you do not get a tolerably healthy one to start with, there is very little chance of it, surviving.

S. M. TOWNSEND.

THE PLUMED GROUND-DOVE (*Lophophaps plumifera*).

SIR,—A new bird we have is the little Australian Plumed Ground-Dove, a cock. I would very much like to procure a hen, to try and breed them; but I am afraid they seldom come into the market. Do you think any other kind of Ground-Dove would cross with him?

M. F. RATHBORNE.

The following reply was sent to Mrs. Rathborne:

This little dove is so rare that I am afraid it would be rather difficult to get it a mate of its own kind. The only dove available as a substitute would seem to be either a Zebra or a Peaceful Dove, as these doves are both the same size as the Plumed Ground-Dove, namely eight inches in length. A Senegal Dove would be too large, and a Passerine or Picui too small. As the Plumed Ground-Dove has been bred at the Zoological Gardens some years ago, it might be worth while writing to the Superintendent and asking if they have a hen to dispose of.

* *Cinnyris zeylonica*.

† *Rhamphastos dicolorus*.

Doves are very strange-tempered birds. Your cock might take to another dove of his own size, and on the other hand he might kill it, but as these small doves seem to fraternize much better than the larger kinds, when kept together; I think your idea would be worth a trial.

R. ALDERSON.

[*Lophophaps plumifera* being strictly a ground species, never perching on trees, and *nesting on the ground* like a Quail, there would seem to be little or no chance of its breeding with any other species except the other two belonging to its own genus, or perhaps with one of the species belonging to the genus *Geophaps*, which are also ground nesters.—ED.]

NESTING OF GREENFINCHES AND ZEBRA FINCHES.

SIR,—I have a fairly large outdoor aviary, about thirty feet long and eight feet high.

Into this aviary I turned out about a month ago a pair of Greenfinches. The hen is a last year's bird, and has been in a cage since she was a fledgling. The cock is probably a last year's bird; I bought him out of a little shop here. The hen started building in a very old large-leaved ivy growing up the house on 30th March, and laid her first egg on the 3rd of April, then three others, and began sitting on the 7th—a lovely nest lined with cotton wool and hair, and very cunningly concealed. As far as I could see, the cock took no share whatever in the building. It is certainly wonderful that a bird who has never been wild should build such a perfect nest.

I turned out a pair of Zebra Finches on April 4th, from a small cage indoors. They commenced building in the ivy at once, and laid their first egg on April 8. The nest was not then domed. On the 9th, however, there was another egg, and the birds had nearly finished doming in the nest. Both birds took a hand in the construction.

Could you kindly tell me how long incubation lasts for the Greenfinches and for the Zebra Finches? There are about two dozen birds of all kinds, principally British, in the aviary, but the Greenfinch does not seem to mind them poking about the aviary in the ivy.

Could you tell me how I should feed the Greenfinches and Zebra Finches, if they should hatch?

W. TWEEDIE.

The following reply was sent to Captain Tweedie.

It is very interesting about the Greenfinch's nest. They are easily bred. Feed much as you would a Canary, and especially supply plenty of preserved yolk of egg. In my opinion, this is very much better than ordinary boiled egg. They feed their young to a great extent on insects, therefore something besides seeds is essential; and also green food of

some kind is very desirable. Wheat and other seeds grown in the aviary give great satisfaction, the young shoots being pulled up by some species, and the green tips nibbled by others.

And what will suit the Greenfinch will serve the Zebra Finch. I never fed them specially. When birds are loose in the aviary, they manage to pick up what they require, and give marvellously little trouble in warm weather.

The ivy against the house is splendid for them; but you will be wise not to inspect the nests.

As far as I have been able to observe, young Zebra Finches come out in about 12½ days, and Greenfinches in about 13 days; but I observe that Dr. Butler, in *Foreign Finches*, states that the eggs of Zebra Finches are hatched in about 11 days.

REGINALD PHILLIPPS.

WHAT BIRD?

SIR,—I have some African Waxbills like the common Grey Waxbill, but they have black bills instead of red, and dark-red tails; also bright patches of red on their wings, something like the Auroras. They look so pretty in the sun. They came with the Common Waxbills, Cordon Bleus, and others, and had no red when I bought them a few months ago. Can you tell me what they are?

G. TOMMASI BALDELLI.

The following reply has been sent to the Contessa Baldelli:

Your question respecting the new Waxbills is certainly puzzling: the nearest species that I can find is the Crimson-rumped Waxbill (*Estrilda rhodopyga*) from Northern to Equatorial Africa: but the latter is said to have the cutting-edges and base of the beak red, probably as in the Lavender Finch*.

I see no reason why this species should not occasionally be brought over with other Equatorial species; but, hitherto it has not, I think, been recognized in the bird-market.

A. G. BUTLER.

JAVA SPARROWS.

SIR,—I should be much obliged for advice about breeding and rearing Java Sparrows in confinement. I have a pair which laid many eggs last spring, and sat well for a fortnight and then ate their eggs. Have

* In a letter since received the Contessa informs me that the cutting-edges of the mandibles are red, that the birds are no larger than the Common Waxbill and have a similar crimson streak from the base of the beak to the eye; the rump is crimson, and there are splotches of red on the wings.—A. G. B.

any of your members been able to breed Java Sparrows in a cage, and what should be done to prevent them eating their eggs? F. HAREWOOD.

The following reply has been sent to the Countess of Harewood:

The secrets of success in breeding Java Sparrows are:—

1. To supply soft food daily from the time that the birds are paired until the young are able to feed themselves.

2. If bred in a cage, the latter should be large enough to enable the parents to use their wings and have a daily bath. I consider a cage of 18 inches cubic measure the smallest in which success can be hoped for: my first success was attained in a much larger cage with white birds.

3. It adds greatly to the prospect of success if one of the parents (the hen) has been bred from white birds, or birds having white blood in their veins.

4. A large nesting-receptacle is more likely to produce satisfactory results than a small one; as the nest of a Java Sparrow is naturally large. A shortish cigar-box (for 100 cigars) with about a third of the lid removed, and the remainder tacked down, is the favourite receptacle: it should be stood on end with the opening at the top, facing the front of the cage, and hung up in one top corner.

I have never known Java Sparrows to eat their eggs; but my birds have always had plenty of cuttle-fish bone and soft food to fall back upon.

I give, as seed-mixture, millet, canary, and whole oats.

A. G. BUTLER.

THE NIGHTINGALE.

SIR,—I shall be glad to know if an English Nightingale would live in an open aviary all the year round, or would it have to be taken indoors in the winter months? Would it sing out of doors all the summer months? Have any of your Members ever had any breed in an aviary?

WILLIAM B. GIBBINS.

The following reply was sent to Mr. Gibbins:

The Nightingale will not live in an open aviary all the year round. It seems to be quite unable to stand the cold and cold wet of an English winter. It should be taken into the house for the winter. As far as my experience goes, the male does not sing all through the summer when out of doors. In my garden aviary it has sung brilliantly, but never for more than a few weeks.

I have *read* of several cases of the Nightingale breeding in a garden aviary, but have no personal knowledge of a case. It will become so friendly that I see no reason why it should not breed*.

* Mr. Babb, the bird-dealer at the Crystal Palace, bred Nightingales some years ago. If I remember rightly they were flying freely in a room.—A. G. B.

Perhaps some of our Members will give us the benefit of their experiences on the points raised by Mr. Gibbins.

REGINALD PHILLIPPS.

The following, extracted from the Proceedings of the Zoological Society of London, 1851, pp. 196-7, is stated by Mr. Frank Finn to be the earliest recorded case of the Nightingale breeding in captivity.

OBSERVATIONS ON THE BREEDING OF THE NIGHTINGALE IN CAPTIVITY.

BY H. HANLEY, SERGT.-MAJOR 1ST LIFE GUARDS.

Being of opinion that any bird which breeds in this country in a wild state might, by studying its habits, be brought to do so in a state of captivity, I made preparations during the winter of 1844 for trying the Nightingale, which I considered to be the most retired in its habits of any of our summer visitants. I had a cage made, four feet long by three feet high, the back, ends and top solid, with a wire front, in which I placed a small Scotch fir-tree, planted in a flower-pot; to each end of the cage I attached a common-sized Canary's breeding-cage, communicating with the large cage by a hole about four inches square. I broke a new birch-broom and filled up the cages at each end, to make them resemble, as near as possible, the bottom of a thick hedge, and then put in a plentiful supply of withered oak-leaves and moss, of which the Nightingale forms its nest, covering the fronts of the two small cages with green glazed calico. I placed the cages high up against a wall facing a landing-window.

The following spring, that is, about the latter end of April, 1845, I directed a bird-catcher (Blake, of John-street, Tottenham-court-road), who goes to Watford every season to catch Nightingales, to bring a cock and hen bird which had paired naturally; he did so, and, fortunately, they meated off very readily. By "meating off," I mean that such birds as live on insect food will not peck at dead food until taught to do so, which is effected by enclosing meal-worms in a small glass tube, corked up at each end, and then placing the tube in their food; on pecking at the worm the beak slips off the glass amidst the food, which they swallow, and will afterwards go to it without the aid of a tube. On finding my birds feed freely in the small cage, in which until then I had confined them, I turned them into the place I had fitted up for them, and was much gratified, about a week afterwards, to observe the hen bird flying about with an oak-leaf in her beak. She made her nest in one of the small cages at the end of the large one, laid four eggs, of which she hatched and brought up three young ones. During the time she was sitting, the cock sang as well and as loud as I ever heard one in a wild state: when the young were excluded*

* "Ejected" from the eggs.—R. P.

he left off singing, and was most assiduous in assisting to feed and rear them.

GREY SINGING-FINCHES BREEDING.

SIR,—It may interest some of our members to know that I have three young Grey Singing Finches in my out-door aviary. I have had the old birds four years and had given up hoping they were a true pair. This winter I left them out, in company with a Goldfinch, a hen Bullfinch, and a hen Canary, and before Christmas I noticed the cock feeding the hen. The nest is in a home made box of the "soap dish" pattern, into which I pressed one of Reece's felt nests; this they lined with a little fine hay, and the hen laid four eggs. Last Tuesday, April 7th, there were three tiny black youngsters, and on Wednesday a fourth. One was thrown out of the nest, the other three look fat and well fed; there is no down on them.

The parents are very fierce, chasing the other birds directly they move. I had to remove the Bullfinch. We had ten degrees of frost last night, but the young took no harm. At nine o'clock the old birds, who are very tame, flew towards me ready for breakfast, having eaten all the egg flake and bread and milk. Both at once fed the young. The nest is near the glass roof and not protected in any way.

GRACE ASHFORD.

IDENTITY OF BIRD, AND DARK-COLOURED LAVENDER FINCH.

SIR,—There has lately come into my possession a small bird which I cannot identify, and I should be very much obliged if you could tell me what it is.

The bird is about the size of a Bullfinch, with a thick head, and heavy bill. In colour it is *all* blue, or in parts blue black. The forehead, cheeks, and a patch on each shoulder, are *bright* blue; the breast is dark blue, and the back also (perhaps rather darker than the breast). The tail and long wing-feathers are black or blue-black, a mark of the same deep shade goes round the base of the beak, and from the beak to the eyes. The legs are dark, the bill whitish but darker at the base; the eyes are very bold and dark. The bird had been two years in England when I bought it, in a small cage, and had been fed on what looked like canary and rape seed. It was said to sing very sweetly, but I have only had it a short time, so cannot say how much of this statement is true. The bird was brought by a sailor from India, and he called it an "Indian Satin Starling," but there is not the *slightest* resemblance to a Starling in "Billie." He is very fond of a mealworm, and does not swallow them, but

sucks the skin dry. "Billie" is always on the look-out for me, when I go into the aviary, and I think will get very tame. The pale patches of blue on him look as if they had been roughly daubed with a brush—the blue is not a green, but more a French blue shade.

Mr. Rothera may be interested to hear that the Lavender Finch I bred, and for which I was awarded a medal by the Society *two years ago* (it not having been bred in Britain before), has always been a *very* sooty shade of grey, and does not seem as if it would ever be any lighter. The red also seems darker. This little Lavender is, I think, a hen, and is a strong bird. It has never ailed anything, until the last few weeks, but it seems about right again now. For some time its head has been rather bare of feathers. I have quite come to the conclusion that tiny birds suffer from this in an *aviary* as well as in a cage, and that when a bird is once in such a condition it is very doubtful if it is ever really well feathered again.

This Lavender Finch looks so dark by my three others as to seem almost a different variety. Some years ago I had a very dark adult hen, but hardly so dark as the one I bred.

R. ALDERSON.

The following reply has been sent to Miss Alderson :

I think there can be no doubt that the bird brought by a sailor "from India," is what the Zoological Society's list calls the "Brazilian Blue-Grosbeak" (*Guiraca cyanea*) ; and that the sailor, in the lax language of his kind, said that it came from "The Indies," meaning perhaps Trinidad, or even Venezuela!

A. G. BUTLER.

THE PROPOSED GENERAL INDEX.

The requisite number of subscribers to the proposed index to the first eight volumes of this journal not being forthcoming, the idea of publishing it will, for the present, be abandoned.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case. Domestic poultry, pigeons, and Canaries cannot be dealt with. No replies can be sent by post.

ROSY FINCH. (Miss Harper). It had diarrhœa, and panted; died next day. [Immediate cause of death, a fit due to enteritis].

DIAMOND FINCH. (Mr. A. Cummings). Bird was attacked by its mate. [Died from an injury to the back of the skull which was fractured].

DIAMOND FINCH and RED-BILLED WEAVER. (Mr. Thorniley).
[Diamond Finch died of acute enteritis; Weaver died of apoplexy].

GOULDIAN FINCH. (Mr. W. Tomes). Only ill one day. [Acute pneumonia].

GOULDIAN FINCH. (The Hon. Mrs. Carpenter). Found dead in cage on arrival. [Pneumonia, which was certainly of two or three days' standing at least].

BANDED PARRAKEET. (Rev. T. C. Lewis). [Bird died of inflammation of liver, caused either from cold or incorrect feeding].

ZEBRA WAXBILL. (Lady Carnegie). [The bird died of jaundice, caused either by chill or error in diet].

GOULDIAN FINCH hen. (The Hon. Mrs. Hodgson). Showed signs of lethargy and was puffy, but did not pant; she died in her sleep. [A blood clot on the brain was the cause of death, and, from the extent of the extravasation, it is marvellous she could have lived so long].

ALPINE CHOUGH. (Mr. Harris). [Congestion of the liver of long standing, with consequent malassimilation of food, and atrophy. I am not well versed in the keeping of these birds, but you seem to me to give too much animal food. Birds of this class in confinement, as a rule, cannot digest the same amount of animal food as when at large, I should think].

ARTHUR GILL.



E. Goodrich del. et lith.

BLACK-HEADED SIBIA.

Malacia capistrata.

Montgomery Bros. imp.

From living specimens in the possession of Mr. Phillips.

Avicultural Magazine,

BEING THE JOURNAL OF THE
AVICULTURAL SOCIETY.

New Series.—VOL. I.—NO. 8.—All rights reserved.

JUNE, 1903.

THE BLACK-HEADED SIBIA.

Malacias capistrata.

By REGINALD PHILLIPPS.

This interesting species has already been referred to in our Magazine, at pages 76, 145, and 162 of Vol. VII., and at page 244 of Vol. VIII.

It is an Indian bird, being found throughout the Himalayas at an average altitude of some 7000 feet, and about Darjiling is stated to be common. Jerdon tells us that "It frequents the highest trees, climbing up the larger branches, and clinging round and below the smaller branches, almost like a Woodpecker or Nuthatch."

As may be seen by a glance at our illustration, it is distinctly handsome; and in a good sized aviary it is showy and attractive. Nevertheless the illustration does not do the species justice, for Mr. Goodchild's portrait was taken in cold weather, from the male when he was ill and lumpy and the plumage dirty and dull. But if he had not been ill he would not have been in a cage, and if he had not been in a cage he could not have been painted. Herein lies one of the beauties of our coloured illustrations, and their superiority over most of those with which we meet, that whereas the latter are usually taken from dried shapeless skins, most of ours are *original* portraits and paintings taken from the living bird, a most difficult and trying task. Of course our picture of the Sibias was finished off later from the birds as they were flying about in the aviary. When in good condition, *on a warm day*, they are slimmer in appearance and

brighter in colour. Moreover, when first received on 21 August, 1900, their tails were longer. This is one of several instances I have noticed in which the plumage of some foreign birds moulted in a cold aviary like mine suffers deterioration, either in length of feather (notably in the tail with long-tailed species) or brilliancy of colour. The crest of the male, too, was longer, being blown about with every breath of wind like a little boy's hair.

The black of the head in my birds becomes very rusty long before the moulting season comes round, but a marked access of black and of general brilliancy, including a great *fulness of the black feathers* of the head and crest, seems to come every spring with the nesting season and warm weather. Sometimes the latter have the appearance, especially in the male, of a great black too-large wig put over the head, with excrescences (the ear-coverts) sticking out from the sides of the head like the gills of a fish out of water. During this season, when the two *Sibias* are looking straight at me, the ridiculously huge wig of the male has the appearance of being altogether considerably larger and broader than that of the female.

I may add, on the authority of the British Museum Catalogue (VII. p. 404), "In N. W. India the birds are much paler than Nepal or Bootan specimens, especially on the hinder neck, and the ear-coverts are browner black than the head." . . . "*Young*. Differs from the adult in being more dingy in colour and in having the head less glossy black, the white bar on the wing less distinct and washed with rufous, and the back rufous, a little duller than the neck and rump, and not showing a distinct mantle-patch as in the adults." As regards the latter, on looking at my birds now (April, 1903), although the line is not sharply drawn, the difference in colour between the chestnut red collar (called "rufous" in the Museum catalogue) and ashy brown back is very marked. The white alar bar, although sometimes conspicuous, at others is not even visible. The sexes are alike; nevertheless it is seldom that I cannot distinguish my male from the female. During the first year the difference was usually unmistakable, the male being the larger and thicker bird, and the crest longer and more wavy; and he was much more bold and enterprising. But, if the birds were dead, it would be

exceedingly difficult to distinguish the sexes from the skins, although probably actual measurements of some of the bones would reveal a difference.

During the summer of 1901, my Sibias commenced building in a lime tree and other places, but the presence of a pair of Rufous-chinned Laughing-Thrushes (*Trochalopteryx rufigularis*) and a pair of Bulbuls prevented them from settling down. During the following summer, they were most anxious to nest, and I gave them the opportunity; but immediately they found themselves in my nesting aviary without any of their enemies, they set to work to "clear the deck"—to kill off my little Finches—so I was obliged to bring them back into the general aviary; thus they have lost their chance, for I have no other nesting place, and cannot sacrifice all the little birds for them. When put up for nesting, I observed a great change come over them; from the bold and forward favourites on the look out for a mealworm, they became the shy and retiring bird of the forest, sneaking about the thickest of the foliage, inspecting every possible nesting site, and but rarely to be seen in the open. Of the nest Jerdon can tell us only: "Hutton procured the nest at Mussooree, made of coarse grass, moss, wool, and roots; and the one egg he got was pale bluish-white with rufous freckles."

Concerning the food of this species, Jerdon says:—"It is very fond of concealing itself in the thick masses of Epiphytic plants found on all lofty trees in Sikhim, and its favourite food is the fruit of the Epiphytic andromedæ so abundant about Darjeeling; it occasionally, however, picks insects from moss, or crevices of the bark." Here Jerdon misses a very marked characteristic of the species, that of incessantly hawking after insects on the wing. No fly or gnat so tiny but a Sibia darts into the air after it; and so sure of aim are they that I may say they never miss an insect that comes fairly into the aviary. On a warm day, especially towards evening, they are never at rest, but are ceaselessly darting into the air after their prey. During the summer, they seem to live solely on fruit and the insects they catch for themselves. The fruit they like best in captivity seems to be the grape cut up into small pieces, but they also partake of ripe pears, oranges, garden currants, &c. When

devouring a portion of grape, they hold it in one foot, peck or rather suck at it, and finally devour it. With many fruits, they suck up the juice; with the mandibles but very slightly parted, with the assistance of the tongue, they literally suck it up. Concerning the tongue, Jerdon says of the genus:—"The form of the birds of this genus is slender, and the bill is more lengthened and attenuated than in most of the members of this family. The tongue, moreover, is forked and slightly brushed, somewhat as in *Phyllornis*" (Green-Bulbuls).

They are nearly as late going to roost as the Tui of New Zealand, like that bird sitting up for the purpose of catching the evening moths.

The *Sibias* are exceedingly fond of mealworms; and it is difficult to keep the mealworms from them. If I omit to shut the door of the bird pantry every time I go in or out, they slip in in a moment, in the hopes of finding an uncovered mealworm dish. If I toss a mealworm to some other bird, like a flash they catch it in the air, and bear it away in triumph. Like the proverbial stern parent, I endeavour to steel my heart and refuse to give them the coveted tit-bit, but they come to either side of me, like a couple of spoilt children, and looking up into my face with bewitching appeals ask for just one, only one, and too often they get it. It is an exceedingly pretty sight to observe the cleverness with which they catch a mealworm in the air, and I could sit and watch them by the hour. But mealworms give the male fits, and more than once I have nearly lost him. This is a great misfortune, for otherwise the *Sibia* is fairly hardy; but experience has taught me that it cannot be fed too plainly.

One instance of the male's illness—the last to date but I dare not boast—is too remarkable to be passed over unnoticed. On the morning of 16 December, 1901, I found him on the floor almost lifeless and with eyes closed, but conscious. He had had a fit during the night, and had fallen like a stone from his high perch. I laid him in a tiny basket by the fire, but neither medicine nor even brandy revived him. After some hours he was able to suck a little milk (with fluid magnesia and bromide of potassium in it) from a paint-brush held to the tip of his

beak. For the next four days, he was able to sit up, but was too weak to do more; on the 21st he was really better, but still took no food but milk, sucking it up from a dish in the manner referred to. On the 22nd and 23rd he "nibbled" at a cut-up grape, and on the 25th ate some tiny cockroaches, but up to about the end of the month he practically lived upon milk. In my opinion he could not have been saved if it had not been for his ability to suck up fluids. He was not loosed into the aviary until the 2nd January, but even then was still weak and tottering. During the later days of his incarceration (in a small cage in the dining-room) he would often utter a modification of his *si-si* call, to which the female in the birdroom would immediately respond with a loud clattering cry.

A marvellous feature in the economy of the Sibia is the pursuit of the female by the male. It would be folly to suppose that the like does not obtain in any other species, but I can say that I am not myself acquainted with any other in which it is even approached. The only parallel that I have myself ever witnessed or heard of is to be found in our common English Squirrel. The love pursuit of a pair of wild Squirrels, if once beheld, can never be forgotten. Up one tree, from bottom to top, and down another, through a plantation and back again, surging backwards and forwards as if possessed by demons innumerable, no words that I can pen can afford even the faintest conception of this wondrous sight. In captivity, if I mistake not, the Squirrel has never bred;—may it not be because in a confined space it cannot perform its wonderful love-race? How it may be with the Sibia in the limitless forests of the Himalayas, I know not, but within the straitened borders of my aviary it is almost an agonizing sight; for as one watches their mad reckless flight, high and low, round and round, in and out, rushing and smashing, dodging and doubling, through bushes and trees, in hole and corner, one expects every moment that pursuer or pursued will be dashed to atoms or fatally impaled. Finally, the female usually darts into some box or barrel, followed by her mate.

The Sibia has many call and other notes, an unusual variety I think, especially if temporarily separated, for my two are close friends, and are practically always together. Mr. Frank

Finn says (VII., p. 145) "*Sibya* is the name given to the bird by the Nepalese, who know it as a native." But why? Probably, I think, because the song of the bird, which, at some seasons of the year, is frequently repeated, may without much imagination be reduced to writing as follows: *Si-si-si-si-si-bia*! this is somewhat of the same character as that of our Yellow Bunting; it is pitched on a high note, the emphasis on the final *si*, the number of which is *usually* four or five, with the *bia* a falling slur, the vowels as in Italian.

The *si-si* song degenerates somewhat as the summer passes, and stops towards autumn, and is succeeded by a Chaffinch-like song. *

Another common note, sometimes used as a song, is *chisick*, repeated quickly from three to eight times; it is pronounced like "Chiswick," the well known place on the Thames. Occasionally this note is used as an alarm call (not quite the same as the cat call), but then the "chisick" as a distinctive word is lost, owing to the rapidity with which the "chisicks" follow and run into one another. This "chisick" call forms the foundation of many of the other calls and notes.

Another call may best be simply described as *squeak*, repeated usually four times.

They have a low ventriloquial danger call-whisper, a little quavering squeak on a low note, exceedingly deceptive as to spot and distance where uttered; doubtless it would be used should any one approach young or nest. When suddenly disturbed, it

* This season, so far, the *si-si* song has not been uttered either so frequently or so fully as in former years; and on April 25 I heard the Chaffinch song three times. Moreover, now they seem to have started a new song which, since the warm weather commenced (I had not noticed it before), appears to have superseded the *si-si* song. The song proper is *che-oo* (the "ch" as in "chief") repeated quickly four times, but it is ushered in with a sort of gurgling creaking (like some of the Weavers) which is half stifled and difficult to get out (like the "song" of the Black Cassique; see Vol. VI., p. 24), the four *che-oo*s being the Lilliputian result of a great labour. It is frequently uttered, and without the slightest variation. Can it be a natural song? or is it a 'make up' from the babel of voices that now fills the aviary?—R.P., May 2.

flies away with a *tsit*, doubtless the note it would use if driven from its nest. Again, when one has some mealworms in one's hand, it comes up to one with the most imploring whispered *tsit* that can be imagined.

Towards roosting time, at the sight of a cat, they or one of them will call out loudly as our Blackbird does at sight of Owl, or prowling cat or fox. Although often disregarding nocturnal foes during the day, many species towards nightfall become exceedingly alarmed, for instinctively they feel that in but a very short time they will be entirely at their mercy. This evening alarm call, a kind of *chickwph*, repeated very rapidly and sharply, rarely uttered during the day, is not identical with that of the Blackbird, but is of the same character.

In addition to the foregoing, the Sibias have many rippling and *si-si* notes, especially on a bright warm day in the early summer, though many are only whispered between themselves. It is in dull cold weather that they are thick; in warm sunny weather they are sleek and slim, fully alive and ever on the move, and rarely silent though not noisy. A single Sibia may be uninteresting, but a pair in a roomy garden aviary are exceptionally attractive.

My two Sibias are so fond of one another that one feels inclined to think that birds of this species must pair for life. It is unnecessary to add that they always squat together when at roost, the hind parts of the bodies pressing together, as they sit side by side, with the foreparts pointing right and left, at an angle of some forty-five degrees or more. They sleep in high sheltered spots, but never in any hole or box.

As I have pointed out, the Sibia is not a delicate species; and it would make a charming addition to the wild birds of this country could it but be acclimatised. Last summer, eleven examples were loosed in England (I think in Surrey or Sussex, but am not sure) by Mr. E. W. Harper, of which one was shot, and another drowned; of the fate of the others I have no knowledge. In my own opinion, they could not live through our cold damp winters and springs, even if they could find a sufficiency of food. My own birds have a keen appreciation of

the value of fresh air and cold water ; but they do not see any joke in a biting nor'-easter or a dull bitter east wind, and retire of their own accord to the snug shelter of the birdroom, where, with an abundance and considerable variety of food close at hand, they can ride out the roughest gale in comfort and safety.

BIRD-CATCHING IN INDIA.

By E. W. HARPER, F.Z.S., M.B.O.U.,

Member of the Bombay Natural History Society.

Probably very few members of the Avicultural Society have ever indulged in the sport of bird-catching ; except, perhaps, in the days of their childhood, by means of the old-fashioned brick-trap, or a sieve supported upon one side by a stick. But I can assure them that, to anyone who is keenly interested in birds, the art is intensely interesting ; and, what is more satisfactory still, there is generally something to show for one's trouble. Besides, one is able to study the habits of our feathered friends in their natural haunts, which, to an aviculturist, is both instructive and useful. And, I may add, a certain amount of knowledge of the habits of birds is necessary to obtain success in the pursuit of bird-catching.

Speaking generally, the English bird-catcher has little to learn from his Indian *confrère* : clap-nets, trap-cages and bird-lime being the means chiefly adopted both in England and India. But, as I shall endeavour to show later on, the great variety of birds in the latter country, with their different habits, often necessitates special methods of capture.

Clap-nets in India consist of two nets, each about ten yards long and four yards broad. These are placed upon the ground, parallel to each other, four or five yards apart ; the ends of the nets being fastened together. One side of each net is pegged to the ground, the other side having a string running along it. When the string is pulled, it causes the side of each net through which the string runs to rise, so that both nets meet overhead, each net having a stick stretched across it at both



AN INDIAN BIRD-CATCHER.



INDIAN QUAIL-CATCHERS, WITH CALL BIRDS.

ends, to keep it in position. Looking at the closed nets, after the string has been pulled, they form with the surface of the ground an equilateral triangle—in other words, they resemble the gable of the roof of a house. Naturally, the birds which are caught in clap-nets are those whose custom it is to feed upon the ground. These include Crows, Larks, Starlings, Wagtails, certain Babblers, Doves, Finches, etc. Food is sprinkled between the nets as they lie open upon the ground, several birds being generally caught at once. The bait may consist of seed, grain, boiled rice, maggots, etc., according to the kind of bird it is desired to catch. The maggots used are the larvæ of the common fly, bred in a mixture of cow dung and blood, and afterwards cleansed by being shaken up with dry earth. After this process, the maggots are perfectly sweet and wholesome, and quite free from any unpleasant odour. Shamahs, some Drongos, and Rollers are sometimes caught in nets; but more frequently by a special method with bird-lime, to be described later on. For Kites, a piece of raw meat is placed upon the ground between the nets, upon which the bird swoops. Tommy Atkins occasionally amuses himself, in a simple way, by catching Kites. He takes a piece of raw meat, and, having tied it in the centre of his blanket, stretches the latter upon the ground in an open space. Kites in India being more numerous than Blackbirds in England, Tommy Atkins has not long to wait before down swoops a Kite in a graceful curve, to clutch the meat in its talons. Its claws having become caught in the blanket, the unhappy Kite finds itself temporarily a prisoner, the artful soldier immediately rushing up to secure it. A Kite is a more unerring catch in mid air, than the cleverest “point” who ever stood upon a cricket field. Frequently have I tossed a dead rat into the air, when a Kite has been wheeling about overhead. Quick as lightning has the bird turned, swooped, and caught the descending rat in its talons, before the latter had time to fall to the earth.

Those Kingfishers which are partially land-feeders are captured by means of a very fine net stretched upright between two sticks. The net is very loosely hung in folds, and the bait—generally a lizard—is placed near it upon the ground. Upon

seeing the bait, the bird dashes into the net, which is almost invisible, becoming entangled in its folds.

Quail-catching in India is an industry of considerable importance, many thousands being sent to the Calcutta market alone, every year. The two men in the photo. at the bottom of the plate are professional Quail-catchers, whom I caused to be recently photographed at Lucknow. Each of the twenty-four cages depicted in the photo. contains a single call Quail, which has been caged some time. Just prior to its service as a call-bird being requisitioned, the cage of each Quail is carefully wrapped in a cotton cloth; for, by this means, it is supposed to call more loudly. A Quail net measures about five yards broad and about fifteen yards long. It is spread in a concave shape, one side being supported by upright bamboos, or sometimes by bushes. The other side of the net hangs loosely upon the ground. Towards dusk, in the evening, the cages, all tied together, are suspended about six feet above the ground, from a stout upright bamboo, stuck in the ground immediately in front of the net. Very early in the morning, shortly before dawn, three or four beaters commence operations some few hundred yards in front of the net, towards the mouth of which the Quails are gradually driven. The call-birds meanwhile unconsciously allure their unhappy fellows to captivity. Once having struck against the net, the Quails are afraid to run back, because of the near approach of the beaters, who, coming up behind the fluttering birds, secure them in their vain endeavours to penetrate the net. The greatest care is taken of the call Quails, they being of quite as much importance to the catcher as the milkman's cow, the coster's donkey, and the keeper's dog are to their respective owners. The call-birds' diet is a very simple one: it consists of seed and water, the nourishing properties of the former being enhanced by the addition of a small quantity of butter, which is rubbed into the seed with the hands. I recommend this process of administering a powerful fattener to the attention of those who keep Pigeons, Doves, Quails, and other grain-eating birds.

Waterfowl are largely caught by driving them at night along the surface of the water, upon which they are reclining,

into a net, lighted torches being used for the purpose. Another method, displaying considerable ingenuity on the part of the duck-catcher, is as follows. A man goes into the water where the ducks are, his whole body being immersed except his head; this is inserted within a globular earthen jar, such as is commonly used for carrying water in. Peep-holes in the side of the jar enable the wearer of this extraordinary head-gear to see where he is going. Having approached his quarry, the duck-catcher quietly takes hold of the legs of a duck from below; and before the owner of the legs has time to cry "Quack!" it is quickly drawn under water. Here, transferred to a bag, or fastened to its captor's waist, the unfortunate duck soon drowns. For a few days previous to his sallying forth amongst the ducks, the catcher floats several empty jars—such as he intends to wear over his head—upon the lake where the ducks congregate. As soon as they have become accustomed to the floating jars, the catcher dons one, and enters the water.

The trap-cages used in India much resemble those employed in England. Like the majority of Indian bird-cages, they are made of thin strips of cane, or bamboo, tied together with twine; perforated cross-bars of the same material tend to add strength to the structure. The trap portion is sometimes at the side of the apartment occupied by the call-bird; sometimes above it; and often both positions exist in the same cage. The door is held open by a twig, which, being liberated by the entrance of a bird, causes the door to close, by means of a strip of cane and a piece of twisted twine, which together act as a spring. The trap-cage is particularly useful when it is desired to catch small birds which congregate in parties or flocks. The calling of one bird is sufficient to attract the whole lot, chiefly owing to their inquisitiveness and extreme sociability.

I shall now pass on to consider the remaining agent ordinarily employed in bird-catching, namely, bird-lime. As prepared in India, it is a mixture of three ingredients: a milky exudation obtained by striking the bark of the peepul tree with a stone; expressed oil of mustard-seed; and a resin of arboreal origin. These three things are melted together in a vessel over a fire, and heated until the required consistence is attained. For

removing bird-lime from the feathers of captured birds, all that is necessary is to rub them with dry ashes. Bird-lime is used in India in two different senses, which I shall term "passive" and "active." In the former, limed twigs are placed in convenient positions for the capture of the bird—either by its feet or by its wings—when it comes in contact with them. In the latter sense, the bird-catcher literally hunts his prey, "stabbing" it with a long rod, which is limed at its extremity. The "passive" sense I will deal with first: it is the only one adopted in England. There, the common method is to place limed twigs just above a cage containing a call-bird, the catcher waiting near in a concealed position, ready to remove the bird the moment it is stuck to the twigs. In India, however, many other ways exist of using bird-lime in a "passive" sense. Fruit-suckers (*Chloropsis*) are caught by tying one of these birds to a horizontal rod, the end of which has been coated with bird-lime, the rod being then placed near a tree frequented by these birds. No sooner does the wild bird see one of its own kind sitting on the rod than its pugilistic qualities cause it to descend, for the purpose of engaging in a combat—which, of course, never comes off. In order to make the tame bird sit still upon its perch, it is temporarily blind-folded, by having its eyelids sewn together.

Perhaps the most efficacious method of all contrivances for using bird-lime in a "passive" sense is the one in which two thin limed twigs are crossed in the middle at right angles, the ends being then stuck into the ground. This forms a structure resembling the double hoops used at croquet, but only about a fourth the height. From the centre of the hoops a live grasshopper is suspended by a fine thread. All insectivorous birds which dart down upon their prey from a prominent position (generally returning to their perch to devour it) may be readily caught in this way. Drongos, Rollers, Shamahs, Shrikes, etc., are among the usual captives of this device, the outstretched wings of the bird becoming glued to the limed hoops.

Kites, Crows, and sometimes Hawks, are caught by tying a piece of meat or a small bird in the middle of a stick, which has been previously coated with bird-lime, and placed upon the ground. A Kite, or a Hawk, grasping the bait in its talons,

attempts to fly off with it, when its extended wings become stuck fast to the stick. A Crow alights upon the stick, and is held by its feet. The most usual methods of catching Hawks is by having as a bait a live pigeon, secured by a string. The catcher erects a hut or a screen of grasses on a plain frequented by Hawks, and secrets himself within. A Hawk, upon seeing the pigeon, darts down upon it, when the man gradually draws the captive pigeon, and the Hawk too, within reach of his hands. The hungry Hawk thinks that the pigeon is escaping, and so, utterly regardless of its own safety, clutches on more fiercely, and allows itself to be captured. To keep the pigeon from fluttering at the sight of the Hawk, the poor bird is often blindfolded in the same manner as the Fruit-sucker, already described. The most simple way I know of catching Crows is often resorted to by natives. It consists in taking a live Crow, and placing it upon its back on the ground, with extended wings; these are kept in position by being tied to two pegs, driven in the ground. The Crow's friends believe in "hitting a man when he is down": no sooner do they see him lying in a state of helplessness than they come to bully, tease, and trample on him. But the helplessness of the captive Crow does not extend to his feet, for in a vice-like grip of his claws, he clutches his tormentor, and holds him until the watching catcher transfers him to his basket!

I will now pass on to describe what I consider the most interesting and sporting of all methods of bird-catching—the using of bird-lime in an "active" sense. The accompanying photo. of a bird-catcher was taken at Lucknow. In his right hand are a number of thin bamboos, all furnished with a hollow joint at one end, so that they may be fitted together upon the principle of a chimney sweep's brush, or a fishing-rod. Each bamboo is about five feet long, and every catcher carries from four to eight of them. At the end of the topmost joint a forked, limed twig, about a foot long, is inserted. When not in use, the twig is carried in the bird-lime receptacle—a thick, hollow portion of bamboo about a foot long—which is seen in the photo. stuck in the right side of the catcher's loin cloth. The flat, circular basket at the man's left elbow is for putting the birds in, when caught. When the catcher sees a bird in a tree overhead,

which he wishes to capture, he quickly lengthens his rod with as many joints as may be necessary (according to the height of the bird), gently pushing up the rod until the limed twigs are within a foot or two of the bird. Then, by a sudden push, at the same time slightly twisting the rod, a capture is generally effected. In order to decrease the possibility of the bird being frightened by the sight of the catcher, a screen of green leaves is often attached to his left arm.

Arboreal birds are the ones which are chiefly caught by this method—especially those which are of solitary habits. The notes of the first songster, perched high up in a tree overhead, may be suddenly cut short by the gliding, sticky tips of the catcher's rod. Quite recently, having procured the necessary implements for this "active" sport, I started for a beautiful garden, in Upper India, well shaded by orange- and mango-trees, for a morning's bird-catching. Ignoring such ordinary birds as Barbets, Mynalis, Dhyals, Babbler, etc., I sought something uncommon from an aviculturist's point of view. In the course of a short time my patience was rewarded by the capture of the four following species:—

Yellow Iora (*Egithina tiphia*).

Short-billed Minivet (*Pericrocotus brevirostris*).

Indian Redstart (*Ruticilla rufiventris*).

Chestnut-bellied Nuthatch (*Sitta castaneoventris*).

The first two I had already kept; but the last two I have never seen in captivity before. All four species, however, are new to the London Zoo, and have probably never been seen alive in England. I can strongly recommend this style of bird-catching for trial in the British Isles.

THE OSPREY.

Pandion carolinensis.

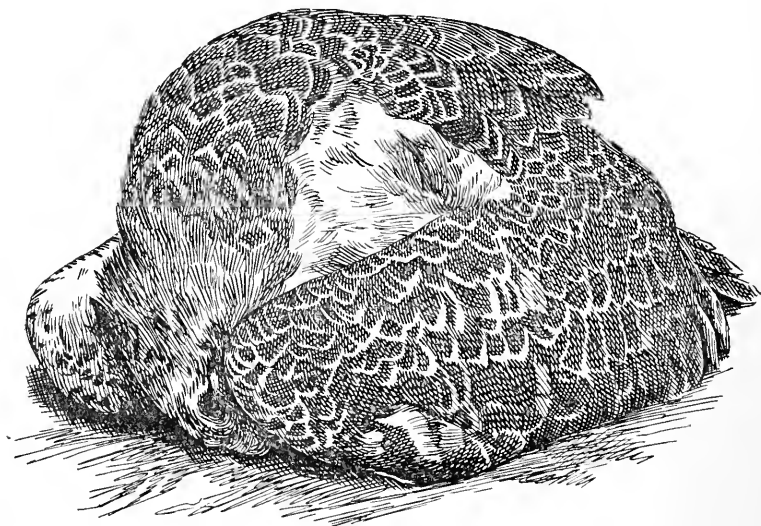
By J. LEWIS BONHOTE, M.A.

It must have been during the early days of 1902 that he first saw the light of day, and doubtless brought joy into his parents' hearts. His home was some 25 feet up on the summit of the tallest mangrove of the district, and from this lofty pinnacle he might, had he felt so inclined, have had a view of miles upon miles of mangroves, broken up here and there by the clear blue of the water, from which his parents would daily take toll to supply the needs of his inordinate appetite.

Of man his parents knew little or nothing; true there was a settlement of perhaps a dozen huts some 50 miles away, and at sea, some four miles off, many small sailing boats would continually be passing and repassing; but these men cared nothing for the great bird that now and again would swerve round their ships, for they were earning far too precarious a livelihood by sponging to have any time to waste on mere birds. In addition to "Joey," for we must give him a name, two brothers were hatched about the same time, and for a month all passed uneventfully, plenty of food and fresh air, causing the young birds to grow apace.

One morning, however, Joey's father was somewhat perturbed by the sight of a human being coming towards his home; at once, mounting the top of a mangrove, he called out vigorously, with a loud and shrill cry, and his mate who had been fishing a short distance off came hurrying up and added her cries to his. This doubtful enemy still continued his advance, and finally reaching the nest, climbed up; there was no doubt now about his intentions, and the parent birds determined to defend their young ones vigorously, swerving down at the intruder again and again, but never actually daring to attack. It did not however take long, and Joey and his two brothers were borne away, leaving the parents to their now deserted home. Although barely a month old, each of the three young ones had found time to develop a definite character. The youngest was

still comparatively small, and although rather shy at first, nevertheless soon became bolder, though continually kept in check and bullied by his brothers; the next was a large and vicious bird, persecuting his younger brother and crying out whenever anyone approached him; lastly came Joey, a bird of absolutely unruffled temperament, whose sole idea in life was to be quiet, an idea which later on caused his death.



Dragon by H. GOODCHILD, from photo by J. L. BONHOTE.

At first they all three had a most peculiar habit illustrated in the above cut, when approached by anyone, of sitting up on their tarsi, drooping their wings and head, and then vigorously screaming while in this position; even when adult, they would on being approached, hold the head well below the so-called shoulders of the wings in a somewhat vulturine position which I take to be a remnant of this early pose.

For the first week they absolutely refused food, which had to be forced down their throats four or five times a day; Joey would take his without moving; he suffered his mouth to be opened and the food to be put in and pushed down his throat. No 2 would fight and struggle viciously, and show that he already understood the use of his claws, while the youngest took

it from one's fingers, evidently realizing the advantage of his elder brothers being too shy to fight him. After nearly a fortnight's travelling and camping out they all arrived safely at headquarters, and were established in a fair-sized aviary: and soon after they had partially recovered from the first shock, fed eagerly on the fish with which they were provided. Joey and No. 2 were now practically full grown, but the younger one did not grow much, and died shortly after the hand-feeding ceased, possibly because of his brothers' persecution, but the cause was not clear.

The other two lived on in peace for some weeks, till one day, for no assignable reason, No. 2 ended his short career, and Joey was left in full possession of a fairly large aviary. There he would sit almost motionless all day, unless anyone approached, when he would lower his head in the vulturine position noted above, and call out with the plaintive cry of his species.

He had an excellent appetite, and used to clear up from four to six pounds of fish daily, and for the first two months of his life was fed twice a day. He would not take food out of one's hand, but as soon as it was placed in the aviary he would pounce upon it, carry it to the ground, and bustle away into a corner with drooping wings and outspread tail. When about five months old, he started for England in a large case of which more than half one side was a door; for the first three days he refused food, but eventually he gave in and ate his daily rations with avidity. I used to visit Joey daily during the voyage, take him from his case, and hold him up to the wind on my arm, that he might be able to spread and exercise his wings, and prevent them becoming cramped; on the sixteenth day he landed safely in England, and was installed at my aviaries.

Here, for several months he did well, and completed a partial moult of his small feathers, but remained always of a very sluggish disposition, sitting solemnly all day on a perch or the ground, and but seldom offering to move. He never took a bath, or indeed any notice of the water in his compartment, but simply sat and ate, occasionally, when approached, ruffling up his feathers and calling out. Winter came, and with it the cold

weather of November and December ; being fearful of losing my friend, on whom I had already bestowed so much care, I gave him rather more food, and so I am afraid was indirectly responsible for his death, which occurred suddenly from a fit in December last, and when examined all his organs proved to be clogged with fat. Such was his end, and great was my sorrow, for although his ways were dull and uninteresting, yet he came of a fine race, and one which is seldom seen in captivity for any length of time, and is not very well suited for such a life.

In keeping birds of prey one has to remember that the pursuit of their sustenance entails such violent exertion that, unless moved by the pangs of hunger, they are the most sedentary of birds ; and further I doubt whether, in a wild state, they ever chase their food until driven by hunger so to do. Consequently in aviaries, where they are regularly fed, unless their diet be limited and they be fasted once a week, they become at once mopish and accumulate vast stores of fat. They are well adapted from their natural means of livelihood to sometimes go supperless to bed, a course which only stirs them to more healthy activity in the morning ; and in captivity I recommend that they should be fed moderately during the week, with a good feed in the shape of fur or feather on one day, and a complete fast on the following day. I am aware that in the case of the Osprey I did not practise what has just been preached, which was due to my over anxiety not to lose him, and his death proves my mistake. There is one more point to be noted in keeping birds of prey ; contrary to general ideas they are most susceptible to cold, probably due in part to their sedentary habits ; and the aviary in which they are kept should be roomy and closed in on all sides, except the front, which should face so as to get a fair percentage of the day's sun, while at the same time it should be so constructed that they can always get some shade should they so desire. The perches are best placed lengthways, the one at the back being higher than that in front, and on the ground in front of both perches they should be given a bath at least once a week, and the floor should be covered with fairly coarse sand. I am not claiming anything new or original in this method of keeping the raptorial birds ; those who have kept them will doubtless learn

nothing new, and may differ on several points, but it is the system on which I find they thrive best, and those members who may think of trying to keep some of these "the noblest of birds" may be glad to learn of a practicable method, which will save them disappointment, vexation, and loss.

INSTINCT IN SONG BIRDS. METHOD OF BREEDING IN HAND-REARED ROBINS.

(*Merula migratoria*).

[The following interesting paper, from the pen of our highly esteemed member Professor W. E. D. SCOTT, appeared in the *American Journal Science*, and is here reproduced by the Author's permission.]

On June 17, 1902, a pair of Robins* (*Merula migratoria*) confined in a large room with some hundred and fifty other birds, of various sorts, hatched eggs which had been laid for some twelve days. This pair of Robins were birds about four years old, and were what are known as hand-reared birds. I had taken them when very young from wild parents and raised them by hand.

On examining the nest after the second day I found there was only one young bird. It appeared to be perfectly healthy and normal, and so matters went on until the fourth day. On the morning of the fourth day I found the young Robin had disappeared from the nest, but the female bird was still brooding. It now occurred to me to substitute two wild young, rather older, from a nest of Robins that had been hatched out of doors in the yard. I introduced these two young birds to the parent birds, with some remonstrance on their part, but within five minutes of the time when I placed them in the nest the old birds were feeding them, and were apparently as solicitous for them as if they had been their own. At the close of the day, the substitution having been accomplished early, and I having watched the birds closely, it appeared to me that only one of the two young birds was being fed, and I took the other from the nest to rear it by hand.

* Red-breasted Thrush: the *Turdus migratorius* of the British Museum Catalogue.—R.P.

Both young birds are now going about, beginning to fly, learning to eat unaided, etc., I feeding one, and the male parent Robin feeding the other.

The following comments suggest themselves to me :

To go back in the history of the parent birds, they were birds that were taken from a nest in May, 1898, and were naked and blind, probably not more than three days old when adopted. The usual method of procedure which I have employed in rearing wild birds by hand is to take an entire brood and nest, and keeping the young birds as undisturbed as possible, to do practically as near what the old birds do as is attainable.

It is unnecessary to suggest that the parent birds I am speaking of are healthy and vigorous, because the very fact that they have bred in captivity seems to determine this. A word seems essential to their method of nest-building. All the Robins that I have in captivity, some sixteen or seventeen in number, of which three or four pairs breed annually, are unable to build a nest-structure, though furnished with every facility, except under particular conditions which I am about to relate. They have been unable apparently to erect a nest of the conventional Robin type. The trees in the room in which they are confined seem to present every kind of fork and crotch and angle of branch that Robins select out of doors for nest sites. After watching these birds for two years in their efforts to build nests, when they were supplied with every material, the *mud* for the *cup* and all kinds of *grasses* and *rootlets* for the foundation and superstructure, I found that apparently they were unable to formulate a nest that would stay together. I therefore provided them with small circular baskets, which were at once taken possession of, and generally the process of nest-building was as follows: They selected various grasses and rootlets, and after much work, covering a period of some three or four days, they lined the baskets in a manner that seemed to them satisfactory, when they proceeded to lay eggs and go through the ordinary and regular processes of Robins' lives during the breeding season. However, in most cases they were so much interfered with by the other birds at large in the room with them that they failed to succeed in hatching their eggs; or, if they did hatch them, the young

were destroyed by other birds whenever an opportunity was given.

It is rather difficult in such a heterogeneous company to determine exactly what transpires; but this is about the case: They do not attempt to build any *cup of mud* in such a nest as I have indicated, but the particular pair of Robins in question did not put a *mud floor* in the basket. I was unable to see them feed or take care of the very small young Robin which I observed in their nest and which was their own progeny, during its early infancy; but when I substituted the foster-children, as I may call them, that were older than the young bird, all the operations of feeding and taking care of the young were apparent. The female bird brooded the young ones for periods of from fifteen minutes to an hour, while the male bird constantly brought her food for the young. He also *removed all excrement as it was evacuated* and carried it at least ten feet away from the nest, and generally farther. Twice I saw him eat the excrement after he had laid it on the floor. I have watched Robins carefully out of doors; and so far as I am able to judge, these Robins in captivity went through all of the actions and attained all the results that Robins attain with broods out of doors. It is not a little singular that they neglected, or that I fancied they neglected, to take care of one of the young ones, and that their attention was entirely concentrated on a single bird. All of these actions that I have recorded must have been instincts awakened by the various stimuli which precede instinctive acts, for no education by imitating the acts of older birds was possible.

It is also interesting in this connection to record the fact that another pair of Robins breeding, or attempting to breed, under similar conditions, so far as I know have failed to lay eggs, or their eggs have been stolen by other birds after they were laid. However, the female parent is incubating and is fully as '*broody*' as any hen would be under like circumstances. That is, I may go up to the nest where she sits, and it is absolutely necessary for me to take her from the nest by force if I wish to see what is beneath her. At such times she bites my finger and fights, and when removed from the nest, utters all the alarm cries and notes that a bird out of doors does when disturbed.

The special point to bear in mind in considering the foregoing records is the fact that all of the birds in question were hand-raised-birds that cannot have gained anything by experience or education from acts performed by their parents; and all of their doings that I have recorded I suggest are in the line of pure instinct.

WILLIAM E. D. SCOTT.

Princeton University,
United States of America.

MORE ABOUT THE SPOTTED WING.

Psaroglossa spiloptera.

Since I wrote my article upon this bird in the December number of this Magazine, I have purchased the second edition of Hume's "Nests and Eggs of Indian Birds." At p. 162 of the first volume Mr. Oates makes the following remarks about the species:—

"The eggs are so different in character from those of all the Starlings that doubts might necessarily arise as to whether this species is placed exactly where it ought to be by Jerdon and others. I possess at present only three eggs of this bird, which I owe to Captain Hutton. They are decidedly long ovals, much pointed towards the small end, and in shape and coloration not a little recal those of *Myiophonus temmincki*. The eggs are glossless, of a greenish or greyish-white ground, more or less profusely speckled and spotted with red, reddish brown, and dingy purple. In two of the eggs the majority of the markings are gathered into a broad irregular speckled zone round the large end. In the third egg there is just a trace of such a zone and no markings at all elsewhere. In length they vary from 1.03 to 1.08, and in breadth from 0.68 to 0.74."

Colonel Charles Bingham, who is familiar with *Psaroglossa* in a wild state replied, when I asked him his opinion as to the natural position of the species:—"Undoubtedly a Bulbul; it agrees with the Buleuls in almost all its actions when at liberty."

When last at the Natural History Museum I asked Dr. Sharpe what conclusion Mr. Pycraft had come to from a study of the anatomy of the Spotted-wing, and he answered :—" Well, he agrees with you that it is a Bulbul ; but it is a strange thing and I can't quite understand it ; it is certainly said to fly like a Starling, and the Glossy Starlings lay spotted eggs."

A. G. BUTLER.

REVIEW.

PARRAKEETS : PART IV.*

Parrot lovers will welcome Part IV. of Mr. Seth-Smith's book on Parrakeets, more especially as it treats of the more commonly kept species.

This part embraces a good many kinds. The Crimson-wing, the King Parrakeet, the Masked and the Shining, the Love-bird, the Hanging Parrakeet, and some of the *Platyceri*, are amongst those treated of, so there is no want of variety. And we are grateful for the plates of such unfamiliar birds as Sclater's Hanging Parrakeet and Brown's Parrakeet. Indeed, if we have a fault to find, it is that Mr. Goodchild's admirable painting should be wasted upon such well-known birds as Pennant's Parrakeet and the Yellow-rumped Parrakeet, instead of giving us plates of Masters's, or of *Psittinus incertus*. It is true that an aviculturist is not likely to have such a piece of luck as to acquire one of these, but then we might have said the same of the *Polytelis alexandra*, or of the Golden-shoulder some years back. And it is of great importance to be able to turn to a figure of an unknown bird. No description equals a plate.

In the accounts of the Crimson-wings and the King, Mr. Seth-Smith does not note what I have found the habit of these birds, their always nesting on the ground—nor does he comment on the peculiar musky smell of the Masked Parrakeet, which makes a bird otherwise so desirable as a pet, unsuitable for dwelling rooms.

* *Parrakeets*; A practical handbook to those species kept in captivity.

By D. SETH-SMITH, F.Z.S., M.B.O.U. London: R. H. PORTER.

It is singular that with nine species of Love-birds known only three ever reach this country. It is a pity the author is obliged to give the Rosy-face a bad character for shrieking, for so small a bird would otherwise make a charming pet. Though no one seems to record a talking Love-bird, it cannot be more impossible, one would think, to teach it than to teach a Budgerigar to talk.

The Hanging Parrakeets are, viewed as pets, hardly worth the space given to them. If the soft food they require is no drawback, their dirty habits prevent any but the most determined bird-lover wishing to keep them.

The *Platycerci* are always fascinating, and Mr. Seth-Smith would not have wearied us, had he given us double as much "copy" about them as he has. He does not take up the question of the different coloured tails in the sexes of Pennants, started by Mr. Farrar some time ago. Perhaps he thought so thorny a question better left alone. But though it seemed to so phlegmatic a person as myself to engender an unnecessary amount of heat, I never thought the question had been thrashed out as thoroughly as it deserved to be.

However, let us not complain at what Mr. Seth-Smith has not given to us, but tender our grateful thanks for what he has.

F. G. DUTTON.

CORRESPONDENCE, NOTES, ETC.

THE MISUSE OF THE MEALWORM.

SIR,—The Ruffs at the Western Aviary are not pinioned, so this does not explain the lateness of the moult.

They are all kept together and have the same food, viz.:—Hard-boiled egg, Spratt's chicken meal and chopped raw beef, so why should some retain the breeding plumage while others cast it off?

A mealworm diet cannot explain this.

Mr. Phillippus states that I have not had the Ruff long enough to observe its character.

Surely ten months is ample time to observe the habits of any bird*, for I notice Mr. Phillipps wrote an extremely long and interesting article on birds he had for only seven.

There must be some other reason for this prolonged moult, but suggestions like those advanced by Mr. Phillipps do not help us very much.

Perhaps Mr. St. Quintin, who has had large experience of wading birds, will give his opinion on the subject.

G. C. PORTER.

PECTORAL FINCHES, &c.

SIR,—I have a pair of Pectoral Finches and can find nothing about them in my books on birds. Will you kindly tell me if these finches are to be trusted in an aviary with Gouldians and Waxbills? My two are wild and do not look amiable so I still keep them in a cage.

Can you recommend me any book on foreign finches? I have Dr. Butler's *Foreign Bird Keeping*. (Mrs.) R. S. VIVIAN.

The following reply has been forwarded to Mrs. Vivian :

Pectoral Finches are not common birds in this country, and I think I am right in stating that, only during the last year or so, has a pair been exhibited at the great Crystal Palace Bird Show.

The late Mr. Erskine Allon had a pair of Pectoral Finches among the three hundred birds associated in his bird-room, and he does not mention them among those which he found treacherous towards their associates (see *Avic. Mag.*, Vol. III., p. 125).

Of the Chestnut-breasted Finch, which is certainly related to the Pectoral Finch, I had, at various times, eight examples living amicably with Waxbills and many other small finches in one of my aviaries; so that I should not anticipate mischief from *M. pectoralis*.

You can obtain a copy of the second edition of my "Foreign Finches in Captivity," through our publisher, I think at about a fifth of the cost of the original hand-coloured edition: of course the plates, being reproduced in chromo-lithography, are not anything like so perfect in colouring as the 4to volume; but the text is a little more up to date, having been revised two or three years later.

A. G. BUTLER.

* Not necessarily, especially when that period does not include the nesting season, nor the birds with full wings. A little difference in the state of health, age, length and condition of captivity, a number of little things affect individual birds as they do human beings. For instance, at the present moment I have here two male Long-tailed Whydahs, the one in summer the other in winter plumage. Last summer the one was in my aviary the other elsewhere, with the result that they are assuming their wedding plumes at different seasons. Another Member, with beautiful aviaries, complains that her specimens failed altogether to don their wedding dresses last year, and have not done so up to the present time (May 7). I am under the impression that all of these birds were brought over from South Africa at the same time and by the same hand, and yet they now differ widely.—R.P.

DIAMOND DOVES, &c.

SIR,—From the account which Miss R. Alderson gives of the Diamond Doves in the May number of the Magazine, it would appear as if these pretty little Doves were generally hard to breed in this country.

I should like to know whether my experience with them is at all unique as I find them breed freely. I have just the one pair which are allowed to fly about in my wired-in garden, with finches both English and foreign, possibly altogether over a hundred birds.

During the first week in March the hen bird built a miniature nest in a fir tree growing in the garden and laid two eggs. I feared for the safety of the eggs upon such an apology for a nest but they were both hatched within a fortnight, the cock taking regular turns with the hen in incubation, and on Monday last both young birds left the nest and are flying about freely. In size they are not larger than a fair sized Whydah bird; already the hen has built another nest in an adjoining fir tree, and appears to be about to lay again.

Might I trouble you with the following questions :

1. How do you distinguish sex of Pekin Robins, and can they be brought to breed in England? I have six of these birds, been in my aviaries over twelve months and no signs of nesting whatever.
2. Same as to Indigo Blue Bird.
3. Same as to Nonpareil.
4. Same as to Tanager.

H. P. RABBICH.

The following reply was sent to Mr. Rabbich :

Diamond Doves are not difficult to breed in *outdoor* aviaries; though I failed to breed them in my indoor ones: our Editor has always been able to breed these doves without trouble.

The best way to test the sex of the Pekin Nightingale is, to imitate the monotonous call-note of the hen: a cock almost invariably replies with a short song-like phrase of seven to nine syllables.

The sexual differences are so slight, and the colouring and size of the hen so variable, that (after making several mistakes in my efforts to pick out pairs) I have concluded that the answering call of the cock is the only absolutely sure test.

The hen has no song: the cock has a short song for a call, and a much longer song for the delectation of himself and family.

The Pekin Nightingale has been bred more than once in captivity in England; probably Mr. Keulemanns the artist was one of the first (if not the first) successful breeders.*

A. G. BUTLER.

* I overlooked the last three lines of Mr. Rabbich's letter. The Indigo Bunting and Nonpareil differ markedly in colouring from their hens, though the former assumes almost the female dress in winter (I believe both have been bred in aviaries). Mr. Rabbich does not say which Tanager he refers to.—A.G.B.

NIGHTINGALES, PASSERINE PARRAKEETS, &c.

SIR,—I have kept more than one Nightingale through the Winter in sheltered but open and unheated aviary, and have a hen bird at present that was put out on 28th February, 1900, and is perfectly healthy at present. I have never been able to get a cock bird, or at any rate one that would sing.

Is it not rather hypercritical to complain of a Passerine Parrakeet being called a Love-bird (p. 243)? See Miss Hawke's enquiry on p. 245. I conceive that 99 people out of 100 would speak of any of the small species, were it red faced, or white-headed, or blue-winged, or even the Budgerigar, as a Love-bird. It may not be scientific, but it is at least more generally intelligible than the names which the scientific classifier uses.

I thank Miss Alderson for her information about the colour of her young Lavender-finch. I am still at a loss as to the identity of my bird, its beak being entirely unlike that of a Lavender-finch. It is large for the size of the bird, and similar in shape to that of a Chaffinch, rather a formidable vicious looking black beak. The bird is about the size of a Silverbill, but shorter and dumper in its build, and has no light colour about it, only a dark, dingy blue gray body with red wings and tail. The dealer entered him in the invoice as "Hybrid," and was evidently unaware what it really was.

Cordon Bleus. The cock bird is clearly the culprit and accountable for his wife's baldness. I have placed him in solitary confinement.

CHAS. L. ROTHERA.

[The Passerine Parrakeet, although superficially resembling the Love-birds (*Agapornis*), is generically perfectly distinct, and we do not see that it is hypercritical to point this out.

Mr. Rothera's description of the bird he cannot identify appears to correspond with that of the Aurora Finch, *Pytelia phœnicoptera*.—E.D.]

THE LITTLE OWL.

SIR,—Could you identify the accompanying bird? There were a pair about here for several weeks, but a youth threw at this one and broke its wing. I was very vexed.

Belton, Uppingham, May 11th.

F. H. RUDKIN.

The following reply was sent to Mr. Rudkin.

The bird was a male of the Common Little-Owl, *Carine noctua*, or *Athene noctua*, as lovers of the Classics delight to call it, for it is the Owl which was sacred to Pallas Athene. It is a common species in most of the

countries that border the Mediterranean, extending northwards as far as Germany, etc., and eastwards to Southern Russia, Asia Minor, and perhaps farther.

To what extent it is a genuine visitor to England, or resident, is not known, as numbers of imported specimens have been set free, notably by the late Lord Lilford, Mr. Meade-Waldo, and I believe by Mr. St. Quintin.

As long ago as 1853 or 1854, my brother and a companion took a solitary egg from a hole in a pollard willow in a little coppice in Worcester-shire. I saw the egg within two minutes of its having been taken, and on a later occasion visited the nest-hole. I have the egg now, and suppose that it belongs to this species.

It makes an interesting and absurdly comical pet, and in some of its ways reminds me of the Burrowing Owl.

It is a useful bird to the farmer, killing mice, voles, insects—and birds I regret to say; and the species has not become well established in this country generally, Mr. Meade-Waldo's neighbourhood, where it is "quite common" as a wild species (VII., p. 112), being I fear the exception and not the rule. It is a misfortune, therefore, that the bird should have been slaughtered, as doubtless the pair were about to breed, or perhaps were breeding, for they should have had a nest by this time. However, if I may judge by the plumage and its general poor condition, an attempt was made to keep this bird alive, and the breaking of the wing may not have been quite recent.

REGINALD PHILLIPPS.

HEMP SEED.

One of our members has recently lost some valuable Parrakeets from fits, and we suggested that hemp seed may have been the cause. The Rev. Professor Henslow seemed to think that as "bhang," which affects the heads of the natives of India so powerfully, is obtained from hemp, it might be that hemp seed may excite the brains of birds and thus provoke the fits. Most kindly he has obtained for us the following communication from an analytical chemist to whom the question was put, who wrote:—"I do not think that any analysis yet published of hemp *seed*—wherever grown—shows the presence of any toxic or medicinal principle. Still one would expect that where the plant produces, in tropical countries, the active principle which characterizes "bhang," etc., the seeds would contain at least traces of this substance. But this argument will not affect the case of hemp seed grown in Europe. I have also been in the habit of looking upon the oil in hemp seed as the offending constituent. It amounts to 33–36 per cent., and is, in some animals at least, found to be less digestible than the oil of some other oleaginous seeds and grains."

It would appear, therefore, that hemp seed in all probability causes indigestion, which sets up in some of the Parrakeets a heated and impure condition of the blood, followed by feather-picking, fits, and other mischief.—R. P.

NIGHTINGALE OFF SOUTH AFRICA.

In a very interesting article by Mr. George Carrick entitled "A Trip to Australia," which appeared in this Magazine last year (Vol. VIII. p. 223), the author tells how a Nightingale came on board his ship in Latitude 39°03 S., Longitude 26°46 E., or 306 miles due South of Port Elizabeth, South Africa. Shortly after the publication of this article I received the following letter from Dr. P. L. Slater, late Secretary to the Zoological Society of London, and an Honorary Member of this Society :—

"Do you *really* think that Mr. Carrick caught a Nightingale 300 miles South of Port Elizabeth (see *Avic. Mag.* Aug. last, p. 223) or is there not some mistake? The Nightingale is not in the South African list, and I hope you will get the story properly investigated."

Mr. Carrick had then gone back to Australia, and I was unable to communicate with him until his return; but I happened at that time to be in correspondence with Mr. A. J. Campbell, of Melbourne, a well-known Australian ornithologist, who, Mr. Carrick stated, often paid him a visit on arrival, and inspected his birds. I therefore asked Mr. Campbell if he had seen the bird and could corroborate Mr. Carrick's identification of it. Mr. Campbell replied as follows: "Referring to your question *re* Mr. Carrick and the Nightingale caught at sea, I did not understand where the bird was taken, but I saw in Mr. Carrick's possession, on his ship, a bird which I believe was the Nightingale, and a friend of mine from Britain pronounced it to be that bird. I also know the person who purchased it. The bird was successfully kept for three or four months on mealworms and other insectivorous food, but in our autumn I think it got mixed up in its moult and succumbed." I have since had the pleasure of meeting Mr. Carrick on his return to England last January, and he told me that he was perfectly certain that the bird was a genuine Nightingale, and that it came on board at the exact spot stated in his article. At the Crystal Palace Bird Show in February last he examined the Nightingales closely, and told me that he had no doubt whatever that the bird above referred to belonged to the same species.

There are three species of Nightingales, the Greater Nightingale or "Sprosser" (*Daulias philomela*), inhabiting Scandinavia, Denmark, and Eastern Europe; our common Nightingale (*D. luscinia*) which is distributed through Central Europe; and the Persian form (*D. golzii*). Mr. Carrick's bird may of course have belonged to the latter species which

differs very slightly from our own bird, but to whichever form it belonged, the fact of a Nightingale being captured so much farther South than it has previously been recorded from, is well worthy of especial notice.

D. S.-S.

THE HIMALAYAN BLUE-PIE: THE INDIAN ROLLER.

SIR,—Perhaps you can help me to identify a bird that I bought some six months ago; it is a blue Jay of some kind, but the dealer from whom I bought it could not tell me quite where it came from. I will give its markings: Head and neck, black, with white spots on the top of head which the bird can move *at will*; the back of the bird a very nice light navy blue; the breast is bluish white; tail black, with white markings underneath; the bill is coral red, also the legs and feet. He has been out in one of my open aviaries all this last week, and will eat hardly anything but fresh meat; he will come and take pieces out of my hand. Also do you think it safe to turn two Hunting Cissas out with him next month, also a pair of Indian Magpies? I may state he can kill a Parrakeet or a rat as well as any dog.

I am sending you either to-morrow or next day, carriage paid, skin of a lovely bird of the Jay family, belonging to a friend of mine, in the hope that you will kindly tell me what it is; he bought it with several other skins from a sailor, who said he had brought it from Australia. Perhaps you can tell me if they have ever been imported. I should very much like to have one or two alive.

H. W. BURGESS.

[The bird described is the Himalayan Blue-Pie (*Urocissa occipitalis*), a remarkably handsome species. Perhaps some other member who has kept the bird will give us his experience of it as an aviary bird. Whether Mr. Burgess's specimen would agree with the Cissas and Indian Magpies it is difficult to say, but we should consider the experiment somewhat risky.*

The skin sent is that of the Indian Roller (*Coracias indicus*), a species which is occasionally imported alive into this country, but has naturally not been studied by aviculturists so well as its European relative. (See Vol. IV. pp. 103 and 121; Vol. V. pp. 46, 64 and 182; Vol. VII. p. 217).—ED.]

* I have kept many of the Blue-Pies (*Urocissa*), three species, and several Hunting Cissas, and they did not interfere with one another, but they were in a large aviary. The name "Indian Magpie" is vague: Probably a Tree-Pie (*Deutrocitta*). A pair of Wandering Tree-Pies were great favourites here some years ago—but the amount of space is the main point.—R.P.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case. Domestic poultry, pigeons, and Canaries cannot be dealt with. No replies can be sent by post.

BANDED PARRAKEET, hen. (Miss F. Showell). Found dead in aviary.
[Concussion of brain: there being a blood-clot over the entire right side of the head].

CALIFORNIAN QUAIL, hen. (Miss R. Alderson). Feathers fluffed up, slightly lame on one foot, put in a warm place, suddenly collapsed and died. [Cause of death was inflammation of the oviduct owing to retention of a broken and partially shelled egg. Your soft food is apt to cause this want of shell formation. These birds do well on dry seed and green food, with a small amount of egg or insect food occasionally].

PENNANT PARRAKEET, young hen. (Mr. A. J. Salter). Purchased only a few days; yesterday appeared drowsy, but no outward symptom of ailment; this morning excrement watery; fell off perch, dead; has been kept in conservatory and fed on canary seed. [Acute enteritis cause of death. Likely causes: sudden change of diet, very cold water to drink, or contracted chill].

RED-HEADED GOULDIAN. (Captain B. R. Horsburgh). Bought five days ago, seemed well, looked puffy, kept fluttering his wings. [Cannot understand bird appearing well: he is a mere frame. Death was due to heart failure, caused by exhaustion subsequent on malassimilation of food, hence the extreme wasting].

LOVEBIRD. (Rev. R. H. Wilmot). [No particulars of symptoms. Fractured skull was cause of death].

LAVENDER FINCH. (Mr. Bathe). Found dead. [Concussion of brain caused by an injury to back of skull].

Hen COCKATIEL and JAVA SPARROW. (Lady Carnegie). 1st, Found dead this morning; I think I broke an egg when feeling bird over. Bird excessively fat; died of egg binding; fed on canary, millet, oats, cuttle fish bone, old mortar, and green food. 2nd, Found dead; had not apparently been ailing. [Bird a great deal too fat. Fatty degeneration of liver was cause of death].

SATIN BOWER BIRD. (Mrs. Johnstone). Found dead. It appeared to be quite well yesterday; kept in an outdoor aviary; been out a month. [I am at a loss to understand how it was the bird showed no symptoms of ill health, as the liver and bowels were acutely inflamed and must certainly have been thus not less than twenty-four hours].

ZEBRA FINCH. (Mrs. Maxwell Sherston). Found dead, and very stiff as if wings were glued to sides. [Concussion of brain was cause of death. The rigid condition referred to was *rigor mortis*, which is present in almost all cases after death for a varying time, but frequently absent in animals killed by lightening].

BEARDED REEDLING. (Mr. H. L. Sich). Found on its back, dead; been turned out three days. [Fracture of skull at base of beak, caused by a direct injury at the point of the bill, most likely during flight].

TRI-COLOURED MANNIKIN. (Miss Appleton). Found dead; turned into outdoor aviary yesterday. [Concussion of brain was cause of death. It was a hen].

PARROT FINCH, hen. (Mr. Cummings). Slightly puffy yesterday; found dead to-day. [Acute enteritis].

BLUE-FRONTED AMAZON PARROT, and SAFFRON FINCH. 1st, Ailing slightly four days, had difficulty in breathing and swallowing. [Pneumonia caused by a chill. 2nd, No particulars; congestion of lungs].

ORANGE BISHOP. (Mr. H. B. Rathborne). Looked dull some time, eyes dull, died this evening. [Ruptured blood vessel on brain, which left a clot of blood, causing pressure. It was of some time standing. Your bird not moulting properly signified debility].

COCKATIEL, hen. (Mrs. Charrington). In outdoor aviary, apparently well yesterday, found dead this morning. [Acute inflammation of oviduct and bowels, owing to retention of a soft-shelled egg].

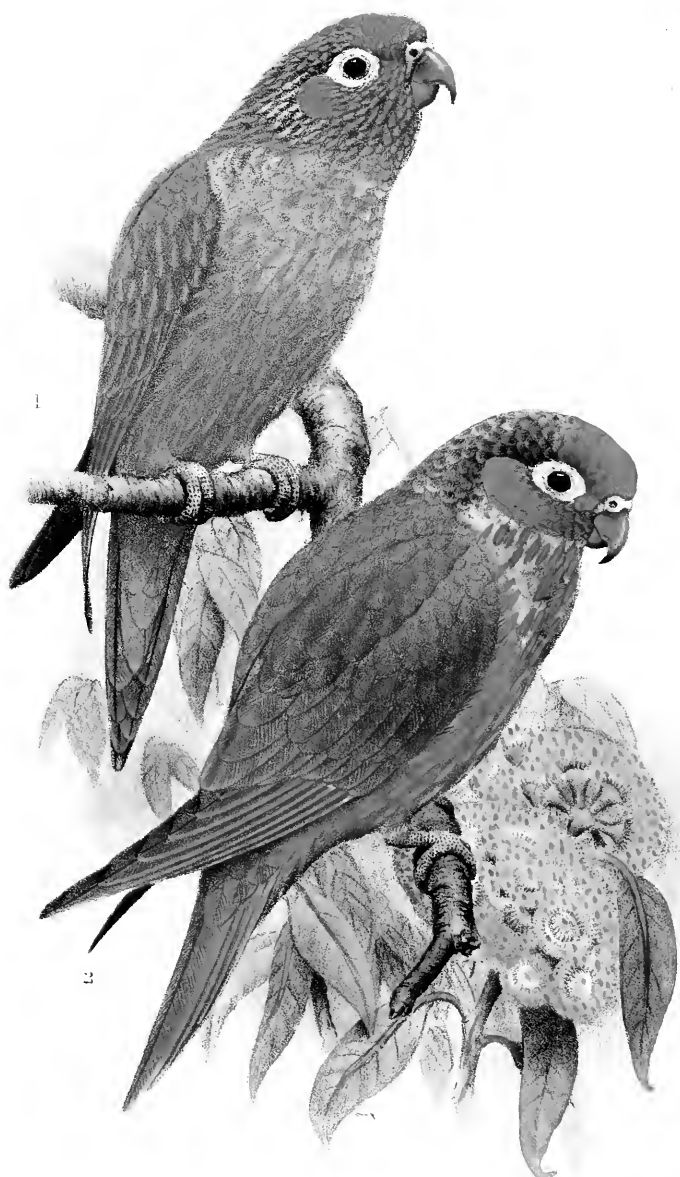
BUDGERIGAR. (Miss Willatt). Has been ailing a fortnight. Fed on millet, canary, oats, hemp, and sunflower seed. [Congestion of liver. I should say the hemp and sunflower seed would quite account for it].

BLACK-HEADED GOULDIAN. (Mr. H. L. Sich). Was in an outdoor aviary, did not fly much, suffered with diarrhoea. It turned its head about slowly, I thought it was getting blind. [Your bird died of enteritis. The weather has not been fit for freshly-imported Gouldians nor acclimatized birds of this species, to my mind. The movements of the head were symptomatic of pain].

GOLDFINCH. (Mr. L. W. Horton). In my possession 18 months, quite well until four days ago. It showed difficulty in breathing, head under wing. I gave Epsom salts in its water. [Pneumonia was the cause of death].

ROSELLA PARRAKEET. (Miss R. Lyon). Purchased ten days ago; never looked well. [Inflammation of liver of some time standing; possibly debilitated by the voyage over, and consequently very susceptible to chill].

ARTHUR GILL.



H Goodchild, del et lith.

Bale & Danielsson Ltd imp.

THE VARIED LORIKEET.

Ptilosclera versicolor.

1 ? ♂ imm.
2 ? ♀ ad.

From living specimens in
Mr Phillips' possession

Avicultural Magazine,

BEING THE JOURNAL OF THE
AVICULTURAL SOCIETY.

New Series.—VOL. I.—NO. 9.—*All rights reserved.*

JULY, 1903.

THE VARIED LORIKEET.

Ptilosclera versicolor.

By REGINALD PHILLIPPS.

At page 114 of the current Volume of the *Avicultural Magazine*, our Honorary Editor introduced this pretty little Lorikeet to our Members.

It was on, or very shortly before, the 15th November last that about nine supposed pairs reached London. It seems likely, but I do not know, that they came from the continent, as, writing from Florence on the 4th of the same month, the Contessa Baldelli informed me that some had been offered to her by an Italian dealer. It is a little humiliating that the honour of first bringing living examples of this interesting species from Australia does not fall to the Britisher, and that only the "remnants" should have come to us. Whatever the exact circumstances of the case may have been, the fact remains that they were on sale on the continent before they reached this country.

It was on the 15th November that two "pairs" were offered to me, two of the birds having red crowns, the other two only the red frontal band. It was supposed that the red-crowned specimens were the males, and the others females; but, if I mistake not, the latter are immature, the former mature, birds whether male or female, the red crown being a sign of maturity not of sex. I selected two of the birds, and believe I have a true pair, but the *red-crowned bird is the female and the other the male.*

Very shortly after their arrival, Mr. Goodchild made a water colour drawing of them as they were then, and a glance at our illustration will enable our readers to see the plumage of the mature and of the immature birds; some of the other specimens shewed intermediate stages between these two feathers, so that probably it takes at least three years before the fully adult plumage is attained.

The male has moulted since my pair were painted, and his crown is now more brilliant than that of his fellow; he has not so much of the plum colour about the breast nor is it of so deep a shade, but he has more blue about the face, and the yellow ear-coverts are more yellow, and more sharply defined and conspicuous. There is a difference too in the curve of the upper mandible, and the female has a black line along the basal third of the culmen. Some time ago, however, she darted out of her cage and dashed against the window, so these two differences *may* be due to accident. He is now the larger bird of the two.

My male is a very healthy satisfactory bird, tame and inclined to be friendly, and repeatedly utters his little warbling "song"; but unfortunately I have not the time to respond to his advances. The female, on the contrary, from the first has not been so good, and is shy and nervous; and for many weeks she would utter wild shrieks every time I put my hand into the cage for cleansing purposes, especially when I attempted to clean the perches. The male has the common little dance of the smaller Lorikeets. Moreover, since they have been in a large cage, the male may frequently be seen on the watch—stiff and straight as a bit of wood, head down and tail up at an angle of about 45 degrees. Sometimes he slightly varies this position by sitting (quite naturally and easily) as it were on the side of the perch instead of on the top, the head being straight down, the tail pointing to the skies, in which position he will remain perfectly stiff and still for 40—60 seconds.

Mr. Goodchild, who, whilst painting them, had more time to watch them than I have yet been able to spare, quite agreed with me as to the sexes.

As this species is not well known to English Aviculturists,

probably I cannot do better than quote the descriptions given at p. 67 of Vol. XX. of the British Museum Catalogue of Birds :—

“ *Adult male.* Green, with yellow-green streaks nearly all over the body, more yellowish on the underside; crown and lores red; ear-coverts and a band on the occiput yellowish green; cheeks and a collar on the nape bluish; breast vinous red, brighter on the sides; quills underneath blackish; inner web and underside of the tail-feathers yellowish green; bill red, cere and naked space round the eyes greenish white; feet light ash-grey; iris brown. Total length 8 inches, wing 4·80, tail 3, bill 0·60, tarsus 0·45.

“ *Immature bird.* Differs from the adult in being smaller, paler, and in having the red on the crown confined to the forehead; the rest of the crown is greenish blue with yellow streaks.

“ *Young.* Pale dull green, with scarcely any streaks; the forehead pale red.

“ *Hab.* Northern and Western Australia.”

And when to the above I shall have added Mr. Campbell's remarks (*Nests and Eggs of Australian Birds*, p. 595), which are very scanty, I shall have exhausted my limited stock of knowledge of the species :—

“ *Geographical Distribution.*—North-west Australia, Northern Territory, and North Queensland.

“ *Nest and Eggs.*—Undescribed.

“ *Observations.*—This delightful Lorikeet flies in flocks in the forest of Northern Australia, where Gilbert first observed it flashing on the topmost flowering branches of the eucalypts and melaleucas. It may be readily distinguished from all the other Lorikeets by the narrow stripe of yellow down the centre of the feathers of the plumage, and the rich, red crown of the head.

“ These Lorikeets are said to breed in the hollow limbs of trees on the margin of the Margaret River, North-west Australia.”

In the latest number of the *Emu*, at p. 218, a correspondent contributes a delightful peep at these little fellows in the Aus-

tralian Scrub. Their craving for water and the squeal of the female may be especially noticed:—

“I am forwarding a skin of a Lorikeet (female) obtained on the river here, where during the past month it has been numerous, feeding on the honey of the *banhinia* blossoms and the river gums. Never saw it on the ground except when down at water. It apparently lives almost entirely on honey. One we caught, and which has taken very kindly to captivity, is reported never to eat seed, but to subsist on sugar and water, with perhaps now and again a small portion of bread soaked in sugar and water. I examined three specimens recently that suicided in a well. They were all females, and, like the one I skinned, contained in their ovaries only very minute eggs. The bird sent fell into the sheep water-trough. I rescued it (only to make a specimen), when it squealed so vigorously that in an instant I was standing in a cloud of the Parrots, which settled on my arms, hands, shoulders, and hat till they weighed down the broad felt brim of the latter, almost to shut out my sight. There must have been two or three dozen on me. It was a wonderfully pretty sight, and I should much have liked to have caught the picture with a camera.—FRED L. BERNY. Richmond (N.Q.), 2/11/02.”

The reference to water reminds me that my birds, or one of them, take a bath very nearly every warm morning before I come down to breakfast. I notice that they come freely to the bottom of their cage when no one is near, not only for the water-dish on the floor but also for remnants of sultanas that have been dropped, and any other food on the ground. Immediately, however, they observe any one approaching, they hurriedly scuttle up to the perches. Doubtless naturally they would prefer taking their bath in the wet leaves of trees after rain; but drought and captivity upset the private arrangements even of Varied Lorikeets.

Most of the different kinds of food are in dishes hung up inside the cage. Mr. Seth-Smith has told us about the food suitable for these and other Lorikeets. With the milk and grapes I likewise give dry crumbled biscuit, sweet but plain, of which

a certain amount is taken, and sultana raisins. Of the latter they are especially fond ; but I must add that I give the very best sultanas I can obtain, not the dirty mixture which is all that can be purchased from the local grocers. I am not aware that my birds have ever touched the seed always placed in the cage for their use.

For a time, and until after Mr. Goodchild had completed his work, I kept my Varied Lorikeets in a small cage in my dining-room. Then for some time they were in a four-foot flight cage, and the change to their larger domicile was highly beneficial to them.

A much better six-foot cage has now become available for their use ; and, as is often the case with nervous birds, they are much more quiet in their larger home. In the larger cage, too, they come more boldly and frequently to the ground, on which they run with freedom and rapidity ; but, as they run along perches in the same way, this does not necessarily indicate that they go freely or at all to the ground in the wild state. Unquestionably they are active birds, running along the boughs, climbing after the blossoms, and without the slightest hesitation hopping or bounding from perch to perch in the ordinary course of their movements.

Towards the end of May, the male seemed to have completed his moult and the female to be well advanced ; but they have moulted so gradually that, except for the change of colour in the male, their sharp-pointed tails, and the cast feathers in the cage, there has been nothing to indicate that they have been moulting at all.

Judging from their moulting season, taken in connection with the particulars furnished by Mr. Berney, we may assume that naturally they would breed towards November and December. How this will work out in our climate, however, remains for some aspiring would be medal winner to find out for us.

A HALF-DAY'S BIRD-NESTING WITH THE CAMERA.

By G. S. CHASE.

For some time I have taken a great interest in the fascinating pursuit of obtaining photographs of our feathered friends' homes *in situ*, apart from the study of foreign birds in aviaries; and in this article I propose to describe the doings of a half-day in the field.

Starting early after mid-day on one of my rambles, first by the lane and then taking to the fields, I at last arrived at a pile of rough cuttings from hedges, not many yards from a farmhouse, and, looking leisurely round, came upon my first quarry in the shape of a nest of our well-known Blackbird (*Merula merula*) (Fig 1.). It is a typical nest of this bird, although perhaps in a somewhat exposed position, and almost on the ground, as will be seen from the illustration.

Working along the hedgerows for some distance, and on approaching a group of large gorse bushes, I heard the cry of a Chaffinch (*Fringilla coelebs*), and, suspecting that I must be "on his preserves," I examined the gorse closely, and discovered his mate comfortably seated on the nest (Fig. 2), which she left as my apparatus was being fixed. The nest contained two eggs which can be partly seen in the photograph.

Departing from the narrative a little, I may remark that, whenever I come across the nest of a Chaffinch, it reminds me of an incident which happened a few years ago, when a schoolboy. Three or four boys, besides myself, were out bird-nesting and we spied an old can lodged in a tall hawthorn hedge. Of course we must, as boys do, throw stones at the can, and, to our surprise, when a stone struck the can, out flew a bird, in great distress, to a neighbouring tree. On examining the can, we found that a pair of Chaffinches had selected this spot for a nesting place.

Returning to the story, I may mention that I made friends with a gamekeeper, and, after a little coaxing, he told me he knew of a Hawk's nest in a wood near by, and, on my suggesting



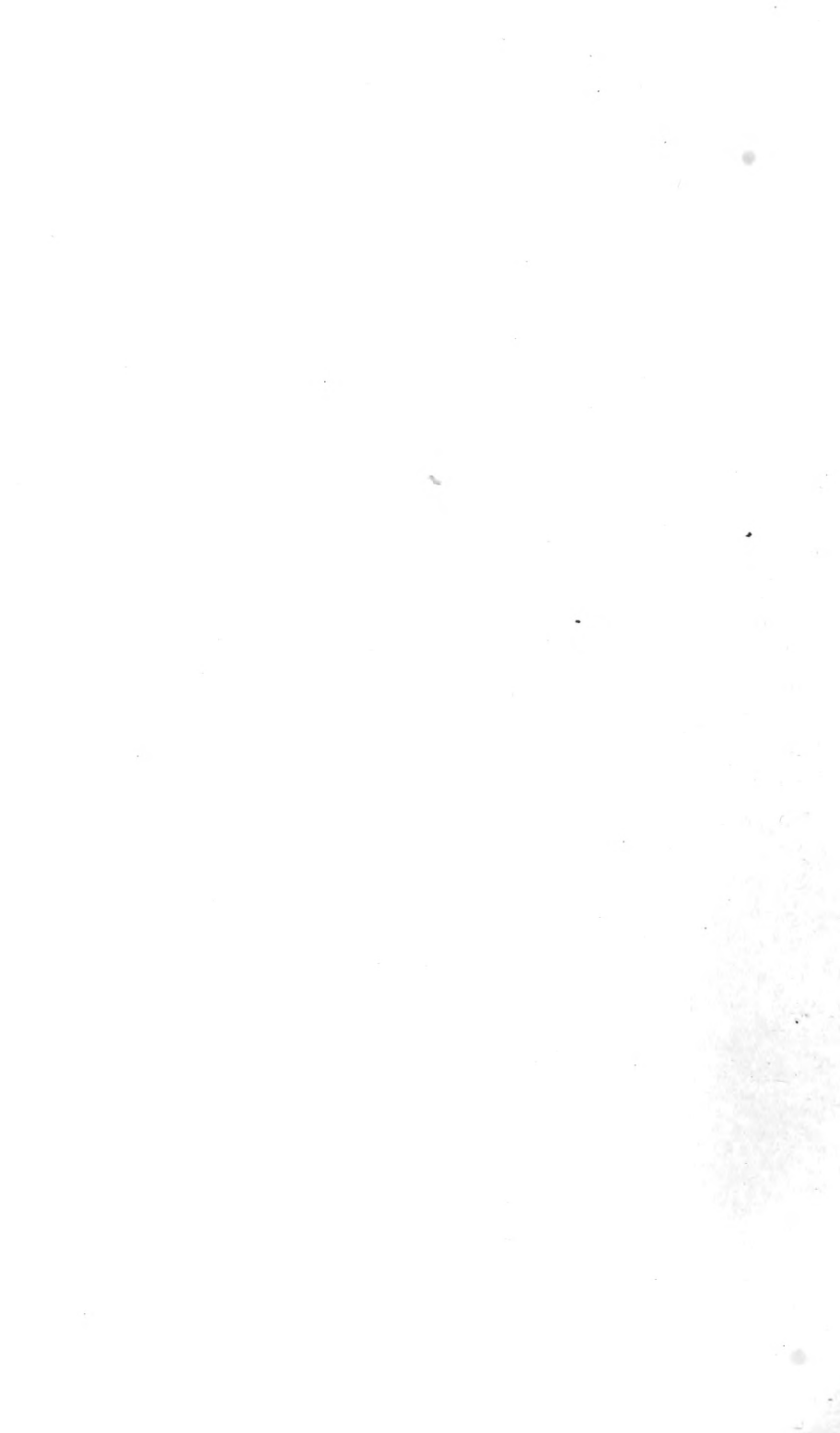
NEST OF BLACKBIRD.



NEST OF CHAFFINCH.



NEST OF MOORHEN.



that I should like to photograph it, we went to the spot—a tall Mountain Fir, the nest being about forty feet from the ground. I proceeded to climb (the rough bark of a fir tree is not pleasant to the hands), the camera slung on my back, and, after a struggle, reached the nest which contained five eggs. It was a very good specimen of the nest of *Accipiter nisus**; but, very much to my disappointment, I found that to fix the camera was impossible, the branches above the nest being very rotten; and those on which I sat, near the nest, would hardly bear my weight, and were rather treacherous. I was thus forced to abandon this opportunity.

After a short rest we moved on, and, when crossing a field near the wood, I noticed a pond well surrounded with rushes, and we took a walk round it. Beneath a small bush, overhanging the pond, was the nest of a Moorhen (*Gallinula chloropus*), (Fig 3). This nest was rather difficult to photograph, being about three feet from the top of the bank, and the water in the pond too deep for wading. The photograph was eventually obtained by placing one leg of the tripod over the bank, and laying the other two legs flat along the ground, pegging them down to prevent the camera toppling over into the water. It will be seen from the illustration that the view is taken looking directly down into the nest, the “sky” portion in the photograph being the water in the pond.

As may be imagined, all these operations took up a considerable amount of time, and the afternoon was then brought to a close.

Concluding, it must be understood that the nests and eggs are not to be seen exactly as represented in the photographs, as, in almost every case, some part of the bush or other surroundings had to be removed a little in order to obtain a view of the nest.

* Sparrowhawk.

THE LESSER ROCK-SPARROW.

Petronia dentata.

By ARTHUR G. BUTLER, Ph.D.

In the February number of Vol. IV. of the Magazine, a note was inserted on the cover asking members of the Society to forward to me dead specimens of any birds with perfect wings, to enable me to extend my study of sexual differences in birds.

Several months later, as recorded in my 'Foreign Bird-Keeping' part I. p. 44, a travelling cage reached me in which were three living birds:—a Long-tailed Grass-Finch, and two different-looking small Sparrows. Outside, the cage was pencilled:—"Parson Finch with injured wing, and two foreign Sparrows; better send them to Dr. Butler (address added), who is studying the wings of birds." I never discovered the sender, nor could anyone definitely name for me the two Sparrows, though everyone believed them to be a pair. The late Mr. Abrahams told me they were a pair of 'Yellow-throated Sparrows,' and that the hen was a most murderous bird, attacking and killing birds even larger than herself: I therefore never turned this supposed pair into an aviary, but kept them permanently in a flight cage, with a small cage hanging up in one corner, in which I hoped to breed the species.

From time to time, year after year, from 1893 up to the present time, a nest has been built in the hanging cage, and eggs have been laid (though rarely in the nest); these have generally been broken by the birds; though last year both birds spent some time on the nest, attempting to hatch out two or three eggs which chanced to be laid therein.

The eggs are almost certainly quite unknown to science, inasmuch as Von Heuglin's statement that "their eggs, which he found in a Weaver-bird's nest, were pure white," is still quoted as authoritative by Capt. Shelley in his 'Birds of Africa' (Vol. III. p. 263). Without doubt the eggs found by Von Heuglin were Weaver's eggs, many of which are white.

Eventually, on May 9th, my supposed pair of birds both got simultaneously egg-bound, and the supposed cock died. After its death I squeezed out the egg, which (although broken) was in all respects identical with those previously laid. I sent the bird to a taxidermist to be skinned, and asked him to get it correctly identified for me: this was done at the Natural History Museum, the bird being pronounced a slightly aberrant example of *Petronia dentata*, the forehead to the middle of the crown, the throat, and centre of abdomen being snow-white in my specimen.

The general colouring of *P. dentata* is ruddy mouse-brown, the median and greater wing-coverts with slightly paler edges; the flights and tail-feathers much darker but with pale edges; wings below with the coverts and inner edges of the flights whitish: the crown of the head is usually dark grey, but in my bird, the back part is dark brown (a little more smoky than the back) and with a large irregular snow-white frontal patch. There is a broad reddish clay-brown eyebrow streak. Usually the chin, upper half of throat, breast, and under tail-coverts, are white, shading into pale brown on the sides of head and throat. In my specimen the white splashes over, upon the front of the face, and is strictly limited to the *centre* of the throat, where it is continuous with the usual pale sulphur patch in front of the breast; the whole abdomen also is white, only stained at the sides with brown. Iris reddish-brown; beak dark horn-brown, flesh-coloured towards base of lower mandible; feet dusky flesh-coloured.

The eggs, of which I was only able to save two, are remarkably uniform in character for eggs of a Sparrow, but are unmistakably of the Sparrow type, *not white*: they are more like a very aberrant egg of the House Sparrow (fig. 141 of Brit. Birds with their Nests and Eggs) in my collection, than any others that I have seen, but, in some respects, remind one of some eggs of the Greater Whitethroat, with which they also correspond much better in size.

The ground of the egg is greenish-white, more or less thickly dotted with dark brown; the larger extremity is always sooty blackish, exactly as if it had been held in the smoke of a

lamp until well blackened: the extent of the dull black patch varies somewhat, but I have not seen one egg without it among the many which my birds have broken. In shape they are broad ovals resembling, both in outline and general size, those of the Greater Whitethroat.

Capt. Shelley gives the following account of the distribution of *Petronia dentata* in Africa:—"The Lesser Rock-Sparrow inhabits northern Tropical Africa between about 9° and 18° N. lat.

The occurrence of this species in West Africa was first made known to us by Dr. P. Rendall, who procured it close to Bathurst on the Gambia river, and Sig. Fea has obtained specimens on the Bissagos islands at Bulamo and Bissas. At Gambaga, about 250 miles due north of Cape Coast Castle, Captain W. Giffard collected a male and two females in January, August and November, 1898, and Col. H. P. Northcott has presented to the British Museum a male and an apparently young female killed at the same place in January and July. Capt. Boyd Alexander has, more recently, met with the species at Walwali, Gambaga, and Karaga, so these birds must be not only resident, but also plentiful in this district.

These Sparrows cross the Continent, for they range over Abyssinia generally, but I cannot trace them farther south than 9° N. lat. In this latitude, on the Nile near the mouth of the Seraf river, Captain H. M. Dunn obtained a specimen, and Lord Lovat shot one at Maritchi in South Abyssinia. In Shoa according to Dr. Rogazzi it is abundant, and he collected specimens at Farré, and Antinori others at Ambo-Karra.

From Northern Abyssinia there are specimens in the British Museum collected by Dr. Blanford and Mr. Jesse at Rairo, Anseba, Gelamet, Bejook and Waliko."

The only published notes on the habits of the species would seem to be those of Von Heuglin, who "met with the species along the Blue Nile and its tributaries, near the White Nile, and in the Abyssinian lowlands. They were found in pairs or small flocks along the openings in the woodlands or perched

on the bushes in the deserts, generally near water." He further remarks that in habits and note they resemble our House-Sparrow.

After keeping the hen for about five years, I should say that the note was distinctly sharper and clearer than that of *Passer domesticus*. It is evidently a quarrelsome bird, the disputes between it and the other hen (which from its pale buffish eyebrow-streak is far more Weaver-like in appearance) being frequent, and sometimes alarming.

The nest which was built in the cage was neatly formed, externally of hay, internally of feathers and wool; and, so far as I could judge, where nearly every egg was dropped from the perch and smashed, the clutch consisted of from five to six eggs.

I have now proved that the supposed young of this species with 'sandy buff' eyebrow is represented by my surviving hen, and that we either have here a case of dichroism in the same bird, or else two races have been confounded as adult and young. Both of my birds having been in the same cage for five years, it is evident that age will not account for their difference in colouring. Capt. Shelley observes:—"Were it not that the specimens have been sexed by their collectors, one would have expected the grey crowned birds with the rufous eyebrow and uniform backs to have been adult males and the others adult females and immature birds." It was therefore no great mistake for me to suppose the two birds to be sexes, and wonder why I could not breed from them: however, as the fact of their being both hens has enabled me to throw some light upon the life-history of the species, I do not complain; and now that Ornithologists have decided that it is necessary to give names to subspecies, I think these two forms will certainly need separation. The form with the pale eyebrow must therefore stand as the *P. albigularis* of Brehm.

It seems probable that my specimens were imported from the Western, rather than the North-Eastern coast of Africa: we see comparatively few Abyssinian types in the bird-market.

Dr. Russ says that "this bird is not rare in the trade, but is only imported a few at a time; as it however is neither beauti-

ful, nor sings, but also is unfriendly after the Sparrow fashion, and moreover destroys other birds' nests, it hardly compensates one to purchase it as a cage-bird; if given its liberty it is always necessary to keep it in an aviary with larger and more powerful inhabitants. The pair rushes about flirting the tail in the Bird-room, and proves itself at all times lively and restless, also very daring. On several occasions have they started to breed and thrown together a very coarse nest in almost any hollow or in a large Weaver's nest, the cup formed of blades of grass, cotton-wool and feathers. Surprising to relate, it has never been extended to egg-laying: otherwise it might have been as easy to breed as Swainson's Sparrow *. As however I just then had many Ornamental finches in the Birdroom, I took out the spiteful Throat-sparrows very soon, and am of opinion that a study of the nidification was not delayed thereby. To my knowledge nobody else has bred the bird, and there is nothing to be found in literature respecting the nidification when at liberty."

It would seem therefore that I am the first bird-student who has seen the eggs of this little Sparrow.

In the British Museum there is an example of *P. dentata* showing the two white wing-bands: this I take to be the immature form of the species. It seems probable that the white tips to the lesser and median coverts point to an ancestral character, still retained in the first plumage of this species.

A FINE COLLECTION OF PARRAKEETS.

Through the courtesy of our member Mr. W. Fasey, I recently had the pleasure of inspecting his very fine collection of Parrakeets at Snaresbrook; and, as I could not persuade him to write an account of his birds for our Magazine, he has allowed me to tell our members of what I saw.

* It is quite possible that all the eggs were dropped on the sand, smashed, and overlooked from the fact that Dr. Russ fully expected them to be white.

Mr. Fasey believes in giving each pair of birds a separate aviary where possible, and there is not the slightest doubt that most Parrakeets are much more likely to breed successfully when thus accommodated than when a number have to share the same place. But, as there are nearly eighty birds, representing some thirty-two species in this collection, it is quite impossible to keep each pair separately.

The first aviary we came to was a large one, consisting of a warm building, thatched with heather (an excellent material for insuring an even temperature), and a large grassed flight. This aviary is well furnished with nesting-logs and boxes, and contains a rare assortment of Parrakeets:—Pennant's, Mealy- and Red-Rosellas, Kings, Crimson-wings, Rockpeplars, Red-rumps, Barnard's, Yellow-naped, Javan, Blossom-headed, and All-green Parrakeets; Swainson's. Musky, Scaly-breasted, and Ornate Lorikeets; Patagonian, White-eared, and other Conures. I was shown three young Rosellas in one nest, and another contained a clutch of Redrump's eggs. A cock Pennant was busily feeding a hen Mealy-Rosella, and a cock Barnard was evidently paired to a hen Yellow-naped. Mr. Fasey has since written to say that the Yellow-nape is sitting on four eggs.*

Although this aviary contains such a mixed collection, the birds seem to agree fairly well together, but, naturally breeding results are not so good as they might be if there were fewer birds.

Mr. Fasey has followed the advice that is invariably given by dealers, as to the feeding of Lorikeets, and confines them to seed; and I must admit that a pair of Muskies looked remarkably well on it. Nevertheless, I cannot be persuaded that this is the correct food for this honey-eating family.

On leaving the large aviary we passed a range of some half-dozen small aviaries in the course of construction, which, when finished, will each be tenanted by a pair of Parrakeets. Then we looked at a small aviary containing a pair of Cockatiels

* Mr. Fasey now writes that the eggs are hatched (June 18).

with young. Further on, we come to the most important collection of all. Here was a range of some eight or nine aviaries, most of which contained but one pair of birds. In the first was a most interesting family of Many-colours (*Psephotus multi-color*), a pair, with three young ones, just out of the nest.

The Rev. C. D. Farrar reared one young bird of this species in Yorkshire last year, but I believe no others have been reared until these three. At the time of my visit, however, three tiny balls of fluff occupied a nest-box in my own aviary, and these are now developing into three fine Many-colours, so Mr. Fasey's are not the only young birds of this very lovely species bred in England this year. Last year Mr. Fasey's birds hatched two young ones before Mr. Farrar's celebrated medal-winner was hatched, but the excessive cold of May killed them.

We looked long and lovingly at these three little beauties; two showing distinctly that they belonged to the masculine gender, by a faint yellowish tinge on the wings, and an indication of green on the face. The third was an undoubted hen. The fact of the sexes of the young being easily distinguishable at so tender an age is a great point in this bird's favour as an aviary bird, if indeed it has not already enough good points to recommend it. Mr. Fasey and I quite agreed that there could hardly be a Parrakeet more charming in every way than this.

In the next compartment was a nice pair of Blue Bonnets (*Psephotus xanthorrhous*), which had been scraping about a good deal in their nest-box, with a view, let us hope, to a family.

Three beautiful Turquoisines (*Neophema pulchella*), a cock and two hens, were in the next aviary. Why is this Parrakeet so seldom seen now-a-days? With the Turquoisines was a cock Stanley, or Yellow-cheeked Parrakeet (*Platycercus icterotis*), a rare and extremely beautiful species from Western Australia.

Then we came to the gems of the collection, in the form of a pair of the exquisite Golden-shouldered Parrakeet (*Psephotus chrysopterygius*), a species about which nothing had been heard for forty years until a few turned up in the flesh some six years ago.

Mr. Fasey may consider himself extremely fortunate to have secured this pair, the male from one of our members, and the female from another, the latter, by the way, being one of the original consignment of some six years ago, though she still looks as young and beautiful as ever. It is too late, I fear, to hope for a nest from this pair this year, as they have commenced to moult, but, with luck and care, there should be a very good chance of a brood next spring.

In the next compartment were some immature Pennants, and next to these a Barraband and two Rock Peplers. Then we came to a fine pair of Yellow-rumps (*Platycercus flavcolus*), whose nest-box contained one egg. I am glad to hear that, since my visit, three more have been laid, and the hen is sitting well. I think I am right in saying that if this bird brings up a brood it will be the first instance of young being reared by this species in Great Britain.*

A pair of New Zealands (*Cyanorhamphus novæ-zealandiæ*) came next, and the last compartment contained a pair of Brown's (*Platycercus browni*), which had but recently arrived. Mr. Fasey expects, very shortly, to add a pair of Golden-crowned Parrakeets (*Cyanorhamphus auriceps*) to his collection, which is undoubtedly one of the finest owned by a private individual in the country.

I wish I could persuade Mr. Fasey to thrash out the origin of Count Salvadori's *Platycercus erythropeplus*, the so-called Red-mantled Parrakeet. It is intermediate between the Pennant and the Rosella, and its habitat is unknown; it seems most probable that it is nothing more nor less than a hybrid between the two, though this can only be proved by experiment, which should not be a difficult matter with Mr. Fasey's fine series.

D. SETH-SMITH.

* The Yellow-rumps have since hatched.

CORRESPONDENCE, NOTES, ETC.

BIRDS OBSERVED NEAR POOLEWE, N.B., DURING APRIL, 1903.

Through the courtesy of Mrs. Mowbray Charrington, we are enabled to present to our readers a list of the species observed by her brother-in-law, Mr. O. Mackenzie, at his place Inverewe, Poolewe, Ross-shire, during April last:—

Dotterel.
 Ring Dotterel.
 Lapwing.
 Turnstone.
 Oyster Catcher.
 Dunlin.
 Purple Sandpiper.
 Knot.
 Common Sandpiper.
 Redshank.
 Greenshank.
 Bar-tailed Godwit.
 Curlew.
 Whimbrel.
 Arctic Tern.
 Black-headed Gull.
 Common *or* Winter Gull.
 Herring Gull.
 Lesser Black-backed Gull.
 Great Black-backed Gull.
 Glaucous Gull.
 Iceland Gull.
 Kittiwake.
 Great Skua.
 Arctic *or* Richardson's Skua.
 Manx Shearwater.
 Storm Petrel.
 Razorbill.
 Common Guillemot.
 Ringed *or* Bridled Guillemot.
 Black Guillemot.
 Rotche *or* Little Auk.
 Puffin.
 Great Northern Diver.
 Black-throated Diver.
 Red-throated Diver.
 Slavonian Grebe.
 Dabchick *or* Little Grebe.
 Cormorant.
 Green Cormorant, Shag, *or* Scart.
 Gannet *or* Solan Goose.
 Heron.
 Grey Lag-Goose.

Brent Goose.
 Whooper *or* Wild Swan.
 Sheld Duck *or* Sheldrake.
 Mallard *or* Wild Duck.
 Pintail.
 Teal.
 Wigeon.
 Pochard.
 Scaup.
 Tufted Duck.
 Golden Eye.
 Long-tailed Duck.
 Eider Duck.
 Common Scoter.
 Goosander.
 Red-breasted Merganser.
 Sniew (Red-headed).
 Golden Eagle.
 White-tailed *or* Sea Eagle.
 Osprey.
 Peregrine Falcon.
 Merlin.
 Kestrel.
 Sparrowhawk.
 Kite.
 Buzzard.
 Hen Harrier.
 Tawny *or* Brown Owl.
 Long-eared Owl.
 Short-eared Owl.
 White *or* Barn Owl.
 and
 Golden Oriole.

Seventy-five species, or, strictly speaking, seventy-four species with the Bridled Guillemot (*Uria troile*, var. *ringvia*) thrown in—truly a goodly list. The occurrence of the Golden Oriole so far North should be specially noted.—R.P.

IDENTIFICATION OF BIRD.

SIR,—I should like to identify a pair of birds I got the other day; I was told they were brought from Africa, and that they are Weavers. They are larger than the usual Weavers, with longish black beaks, the

upper mandible slightly curved at the end. Head and neck grey, shoulders wings and rump reddish brown, breast light grey fading into white on the belly and under parts. The tail is dark brown, so are the flights, each feather being almost black in the centre and of a lighter brown at the edge. The under part of the wings is also brown but of a lighter shade. The cheeks are of a darker grey than the rest of the head, and give the impression that if the bird were in full colour it might have a black mask (but I do not know whether it is in full colour or not). Eyes dark and bright, legs stout and strong and of a flesh colour. It is a lively restless bird, and often hangs down from its perch. There is a slight white band across the wings which does not always show. At the International Bird Show now being held here (Florence) I have called it *Nigrita arnaudi*, and it has been accepted under that name; but never having seen the bird I am not at all sure of being right, nor am I sure of its being a Weaver. I have not yet heard its voice. It eats seed, but I should think it probable that it likes fruit, or at least berries, for it rushed at some maize—which however it found too hard to peck. It is about the size of a large Greenfinch.

GIULIA TOMMASI.

The following reply was sent to the Contessa Baldelli :

I must confess that your description of the pair of Weavers has puzzled me completely.

If the birds are the size of a large Greenfinch, and if the breast is light grey fading behind into white, I do not see how they can be *Philæterus* (*Nigrita*) *arnaudi*; because the latter is $1\frac{1}{2}$ inches shorter than an ordinary Greenfinch, and has drab-brown underparts.

In most respects your description seems more nearly to correspond with *Ploceipasser rufoscapulatus*, which is only 2-10ths larger than an ordinary Greenfinch; and though that bird is said to have the "bill and feet horn-colour," it is quite likely that the colouring of these parts was taken from a dead specimen, and had long before faded.

P. arnaudi, on the upper surface, is mostly light "drab-brown"; *P. rufoscapulatus* "rufous-chocolate," which seems to answer better to the reddish brown of your description.

The only serious discrepancy seems to be in the colouring of the tail, which you describe as dark brown with blackish shaft-streaks, whereas in *P. rufoscapulatus* it is described as uniform light brown; but, as the species seems to have been described from a unique male, this might be due to discoloration.

If your bird is a Weaver, I see nothing else for it; but it seems hardly possible that so rare a species should turn up as a cage-bird. The trick of hanging downward from the perch is peculiar; it is a common amusement among Hangnests and some of the Troupials, but I have not

noticed it with Weavers; though they often hang head-downwards clinging to the wires of an aviary.

A. G. BUTLER.

LOVEBIRDS, ETC., FOR COLD GREENHOUSE.

SIR,—I would be very pleased if you could tell me if Madagascar Lovebirds, Nuns, Java Sparrows and Cutthroats would live in a greenhouse without steam heating all winter, we have very little snow or frost? Could you also tell me of some other small birds that would live in cages in the unheated greenhouse?

WILLIE H. WORKMAN.

The following reply has been sent to Mr. Workman:

In times past I have kept all the birds you mention in a covered aviary, one side of which was only protected from the open air by a canvas screen: the aviary at that time was unheated, and the thermometer in the winter frequently registered a few degrees of frost (on one occasion as many as twenty-one degrees): I lost very few birds from cold, and those that did die from that cause were chiefly British birds.

In a greenhouse the cold would not be so great as in my aviary as it then was, therefore doubtless the same birds would live; whether they would enjoy their life is another matter: as I concluded that it was hardly fair to subject birds from warm climates to a temperature which was painful to myself, I filled in the open side of my aviary and introduced a radiator: the result is that if my birds desire to breed in the winter, fewer suffer from egg-binding.

The Weavers, the Common and Green Amaduvade Waxbills, the Parson-finch, (and probably the Long-tailed Grassfinch) are not susceptible to cold, though I suspect they all prefer warmth.

A. G. BUTLER.

HYBRID SINGING-FINCH, ETC.

SIR,—I do not know whether the following facts will be worth recording in the *Avic. Mag.*

Last autumn or winter I purchased two newly-imported Singing-finches, one a grey, the other a green. I kept them indoors until April, then I turned them out into an aviary. They soon went to nest, the Green one being the cock, and the Grey the hen. They built a pretty little nest of fine grass, on a foundation of fern leaves, in a Hartz cage, and laid four eggs which all proved clear, so I removed them. The hen, in less than a week, laid again in the same nest, without apparently altering it. She laid three eggs, and this time two proved fertile and hatched out, but one young one disappeared; the other they successfully reared, and it is flying about, strong and healthy, now in the aviary. It has the marks of the Green

Singing-finch near the eyes, but in other respects it is like the mother. Has this cross been reared before?

I have one Redrump out of the nest to-day. A pair of Rosellas are sitting.

Cockatiels are most disheartening; eggs never hatch although the birds sit well. Sometimes the young are quite fully developed in the egg.

F. H. RUDKIN.

AFRICAN SPARROWS, ETC.

SIR,—I am quite ashamed of giving you so much trouble about my birds.

Since writing to Mr. Phillipps I have heard the note of what I supposed was the *Nigrita arnaudi*. It is decidedly like the chirp of a Sparrow, and I wonder whether they can be Swainson's Sparrows instead of Weavers.

The birds were brought from Africa by a gentleman, who kept them in an aviary with Red-faced Love-birds, and he considered them very rare. After his death the bird-dealer got them, thought nothing of them, and was glad to make them over to me. They were pronounced to be *Ploceidae* by some learned gentlemen at the Show, but they are not like any Weaver I have ever seen, and are very like Sparrows in their ways and in their movements and in their song. The beak is long and black and shining; the point of the upper mandible slightly arched and projecting over the under one. They peck hard if taken in the hand. The head, neck, and breast are of a soft bluish grey; a patch of darker grey round the eyes; the bend of the wings and rump are of a reddish brown, like the brown of the Black-headed Nun; the flight feathers and tail are dark brown with light edges; across the wings is an indistinct white bar which only shews occasionally when the feathers are ruffled.

If they turn out to be Sparrows of some kind could you tell me what their character is, and whether they can be trusted in a mixed aviary? Also I would like to know what their food ought to be. I was told millet and canary seed; but one of them has got very thin, and turns up the seed and seems to miss something necessary. I have tried bread and milk, but they do not care for it; egg they will not touch; cherries and dried figs they seem to relish, and they are very keen on mealworms, but I dare not give more than two or three per day. They eat salad, and pounced on some bullock's heart but did not swallow it. They are often nibbling at the cuttle-fish bone, and pick up sand and old mortar on the bottom of the cage.

I should like to know the difference between the Golden Sparrow and *Passer luteus*. Those I have are bright yellow with brown wings, the hens being of a yellowish grey: and I do not know which of the two they are.

I have become lately the possessor of a pretty *Cæreba cyanea*, which is fed on sugared milksop. It has lived on this food and on what flies it can catch for nearly three years. Could I give it very ripe oranges and figs or grapes in their season? Bananas I do not think are good here.

I am anxious about a Macaw which has got very thin without any apparent symptom of disease, and has lost its appetite. I am inclined to think jealousy is partly the cause, for it dotes on my maid, and wants more attention and petting than the girl can give it; still at times it ruffles the feathers on its head and moans just as if its head ached. I have removed it into another room to give it a change, and am trying different seeds, biscuits, potatoes, and fruit to induce it to eat.

My numerous birds give me plenty to do.

GIULIA TOMMASI BALDELLI.

The following reply has been sent to the Contessa Baldelli:

I have little doubt that you are correct in your identification of the supposed Weaver with the *Passer swainsoni* of the British Museum Catalogue, but which Capt. Shelley in his 'Birds of Africa' says he is unable to separate from *Passer diffusus*, the well-known Grey-headed Sparrow of Africa.

I had a specimen of this species (I think a hen) for five or six years, and wrote a short paper upon it in the second volume of our Magazine; but, in case you do not possess that volume, I may say that I kept it with African Weavers, because Dr. Russ states that it is spiteful towards smaller associates. My bird had access to oats and hemp, in addition to millet and canary.

Passer luteus has a deep cinnamon back; but *Passer euchlorus* (the 'Arabian Golden Sparrow' according to Shelley) has the back canary-yellow like the head.

I have never kept *Cæreba cyanea*, but should think it risky to mix up milk and oranges: perhaps I am wrong. I do not think figs or grapes would be hurtful.

A. G. BUTLER.

FEATHER PLUCKING, NIBBLING, AND EATING.

SIR,— I am not sure my Canary-winged Parrakeet may not be going to turn over a new leaf. It seems to have left some of the feathers on the back alone.

I wish M. Pasteur would rise up and investigate the cause of feather eating.

Do any other birds than Parrots eat or pluck feathers?

In Seth-Smith's extracts from other authors, I see they say the Parrots eat the *small insects* on the trees.

Now there are three things:—

1.—*Feather plucking.* Very rare; I have seen only one case. Probably it was much more common sixty years ago when Parrots were less understood and given meat. In that it is undoubtedly irritation from fevered blood, and diet will cure it.

2.—*Feather nibbling.* A trick like biting nails in children: quite incurable.

3.—*Feather eating.* Probably from want of something in diet: could be cured possibly if we knew what; but the bird generally dies.

It is just possible that my Canary Wings were wrongly fed or insufficiently so. They seem to eat nothing but canary seed, but rather more than would keep a Macaw going. Now they have plenty, they may not want their feathers.

I fancy some breast feather plucking may have to do with nesting. I had a Grey who always plucked her feathers before laying an egg.

F. G. DUTTON.

The following reply was sent to the Hon. and Rev. Canon Dutton:

Yes, other birds besides Parrots pluck their feathers.

Many years ago, a Raven I had plucked its breast horribly. I did not know then, but do now, that this was caused by too much solid raw meat.

Several years afterwards, a Chinese Blue-Pie (*Urocissa erythrorhyncha*) we had here commenced plucking her breast very viciously; twice she did this, and was cured each time with fluid magnesia and more careful feeding. She lived with us for many years afterwards (over twelve altogether) but never repeated the plucking.

. always feeds his Tui Parrakeets on hemp seed, and every Tui I have bought from him has eaten its breast feathers; and in every case the bird has discontinued the habit within a few months of purchase, the hemp being stopped, and canary and banana or cut up grapes substituted. A female I have at this moment was wretched when purchased, but is now in faultless feather.

Speaking from memory, feeds all his *Brotogerys* on hemp; and he had a number of Canary Wings (or rather White-winged Parrakeets, *Brotogerys virescens*) a little while back. I feel pretty certain that your bird has been fed on hemp, and pretty confident that it will come all right again if properly fed.

REGINALD PHILLIPPS.

THE SPARROWHAWK AND THE LONG-HORNED OWL.

(An extract from a letter addressed to the Hon. Bus. Secretary, dated June 5th).

My man caught a nearly full-fledged Long-horned Owl in a curious way a few days ago. He had been to look at a Sparrowhawk's nest, and afterwards found and flushed a young Long-horned Owl, which in a clumsy

fashion flew off and lit in the Sparrowhawk's tree, almost if not quite upon the nest. The old Sparrowhawk returned, and dashed at the Owlet, dragging it through the branches to the ground, and my man rushed in and seized it! It is doing well on the lawn under a tree, seated on a hawk's block, with leash and soft jesses on.

W. H. ST. QUINTIN.

CARDINAL ILL.

SIR,—Having a cock Virginian Nightingale that is unwell I should be much obliged if you would kindly let me know what I could do for it.

I have had it about eighteen days, during which time I have kept it in a large cage in my outdoor aviary, and it appeared well when I got it.

It looks puffed out a bit, and stays principally on the bottom of the cage, and keeps its wings down its sides, the feathers being spread out, and does not eat much, only I fancy a few mealworms, and seems to have some difficulty in swallowing, but what it passes appears fairly right.

It has not been well for about three days, but to-day it is much less active and looks worse, so I am afraid it will not live long.

For food I have given canary, millet, ants' eggs as bought, some fruit, such as banana, orange, and apple, about three mealworms daily varied by cockroaches, also occasionally some white sunflower seed and a little hemp.

NICHOLAS S. O'REILLY.

The following reply has been sent to Mr. O'Reilly.

I should think it probable that, previous to its coming into your possession, the bird had been kept in a close warm place, and that its exposure in an outdoor aviary during the late extremely variable weather may have affected its lungs.

If the excreta are healthy, it is evident that the bowels are not inflamed; on the other hand the difficulty in swallowing which you mention indicates a probable affection of the respiratory organs.

The feeding is correct; though I would substitute oats for hemp, as being more easy of digestion; and, unless the bird quickly recovers, let it have a little egg and biscuit daily as soft food.

A purgative at the commencement of the treatment is always advisable, and, as it is difficult to administer castor oil to a Cardinal, I should advise the addition of six grains of Epsom salts to the drinking-water for one day. On the succeeding days I would put into the drinking-water 10 drops of glycerine, about an equal quantity of dissolved gum arabic, 5 drops of solution of muriate of morphia, and 8 minims of tincture of digitalis. Keep the bird indoors and out of draughts.

A. G. BUTLER.

THE HON. KATHERINE HAMMOND will be exceedingly obliged if

Dr. Butler would kindly give her some advice about a Virginian Nightingale (scarlet). It has lived on the Riviera some years and is not at all young. It moulted well in February. It had not been specially suitably fed ere Miss Hammond received him as a present, and she gave him one or two mealworms a day, and he sings most beautifully, which he had not done for a year or two. She brought him to England some six weeks ago, and he had not been here a fortnight before he went into moult again, skin very white. He seems only to have moulted on his head, otherwise he seems to be in perfect health and spirits and song. His food now is Abrahams' food, canary seed, fruit, and millet branch. Is this right feeding? He bathes freely—but his head is almost bare of feathers.

The following reply has been sent to the Hon. Katherine Hammond:

There is no doubt that the Cardinal which you have is suffering from what is known as "surfeit," a disease which is due to incorrect feeding, and which invariably results in the untimely loss of feathers from the head.

The cure for this, in a bird the size of a Virginian Cardinal, would be to give, for one day, six grains of Epsom salts and an equal quantity of chlorate of potash, in the drinking water; to let the bird have plenty of fresh green food (chickweed and groundsel for preference), and the proper food. Anoint the bare part of the head with vaseline.

Your feeding would, I think, be improved by the addition of whole oats and sunflower seeds. I would not recommend you to add maize and hemp-seed (as recommended in my little book—"Foreign Bird Keeping"), because both are somewhat heating for a bird with an unhealthy skin.

It is important that Virginian Cardinals should not be subjected to great heat; as, if kept too warm, they are liable to apoplexy. A cool shady room, or an outdoor aviary, suits them best.

A. G. BUTLER.

THE SEX OF PEKIN NIGHTINGALES.

SIR,—I cannot agree with Dr. Butler's opinion that the sexual differences in the colouring of Pekin Nightingales "are so slight."

The truth is that the males of this species are nowadays extremely scarce in England. Quantities of these birds are imported by the large dealers, but they are not infrequently *all* females! I have purchased so-called pairs from two noted bird-dealers (one in London and one elsewhere) everyone of which were hen birds, and in wretched condition too! Amongst perhaps fifty to a hundred hen birds, supposing one is choosing them in the shop, there are naturally some individuals that are brighter in colouring than others, and these (at first sight) one is apt to select as males, and the duller coloured birds as females.

Two years ago I saw two genuine males in Mr. Hawkins' shop, (Bear Street, Leicester Square) immediately after a vain endeavour to select some pairs in a dealer's shop in East London. There was a very great difference between those two male birds and the large number of Pekin Nightingales which I had seen an hour before; one realized then that one had been looking at a lot of females. Mr. Hawkins at once admitted that he had obtained those two males with difficulty, and that for some unknown reason only females had for some time past arrived in the English market.

I have lately seen many Pekin Nightingales in bird-shops in Genoa and Florence, where the males were predominant. I picked out two or three genuine pairs with hardly any hesitation. I admit that if the birds are not in good condition and plumage, it is much more difficult, or may I say, less easy to do so; but all these birds were more or less in very fair condition. The males are a much lighter olive green on the head, the dark line running from the corners of the mouth is more pronounced (considerably more so), the yellow throat is much more brilliant, whilst the orange of the fore neck extends farther and is *much* richer and deeper in colour. If a male and female are put together in a cage, both in good plumage, I believe that even people quite unused to them would pick out the sexes. And then again the bill of the male is a brighter red than his mate's.

To go into further comparisons, I may say that where, in the male bird, the deeper sunset orange of the fore neck is sharply defined beneath the yellow throat, in the female the paler yellow throat continues over the foreneck and fades away into the dull olive coloured breast. In the female also, the pale yellowish feathers (which in the male, sharply divide the olive green of the head from the dark lines that run from the corners of the mouth) are very much less definite and more washed out. When a pair of Pekin Nightingales are seated side by side, the breast colouring in each bird is *most* distinct.

Other details which can be detected but which are less evident, such as a larger head and eye in the male, need not be so closely dwelt upon. Of course I am speaking of adult birds.

What Dr. Butler writes as to the voice test in selecting a male and female is very true.

As a rule if a male bird is picked out from a number of others and placed in a cage by himself, where he cannot see his companions, he will very quickly begin calling and even singing.

The female merely chatters, whereas the call note of the male is far more melodious.

H. D. ASTLEY.

SIR,—In reply to Mr. Astley, I frankly admit that the distinctions which he points out (and which the late Mr. Abrahams relied upon) exist between males and *some* females of the Pekin Nightingale: but, unhappily,

both types occur in the female sex, so that a brightly coloured hen when seen beside a typical cock differs only very slightly in size and in contour of the bill.

Among three dozen hens which I bought some years ago, hoping to get a fair percentage of cocks, the colour differences, had they been constant, would have been ample to distinguish several well-marked species; in two examples the throat was quite white. I have females now which answer to Mr. Astley's description of both sexes.

A. G. BUTLER.

ANNUAL MEETING OF THE COUNCIL.

The Annual Meeting of the Council was held at the house of the Honorary Editor on the 13th June, and important business was transacted, various alterations being made in the Rules, bringing them up to date and more into accordance with the general advance and extension of the Society, all with the view of strengthening the Society and preparing it for steady and good sound work in the future. The Rules, as revised, are given below.

THE CORRESPONDENCE SECRETARY.

The nomination of Dr. Butler to the new post of Correspondence Secretary was confirmed with acclamation (see p. iii. of cover of the June Magazine).

RULE 5.—THE ENTRANCE FEE.

It is felt that it is unjust and unfair to old and faithful Members that new comers should be able to profit by and enjoy the fruits of their labours by the payment of such a paltry sum as 2/6. After September next, new Members, including all who do not subscribe for the current year, will have to pay an Entrance Fee of 10/6.

RULE 7.—NON-PAYMENT OF SUBSCRIPTIONS.

The attention of Members is especially drawn to Rule 7 as revised. In future, *no Magazine will be forwarded to any Member until the annual subscription shall have been paid*. In deciding upon this important step, which indeed has been forced upon the Council by the Members themselves, and in thus placing the matter upon a proper business-like footing, the Council is but following the lead of practically every well established and important Society in the country.

RULE 9.—THE ELECTION OF OFFICERS.

The old Rule 8 has been entirely remodelled. As regards the Council, as no election has taken place for two years, it has been decided that an election shall take place this autumn. The names of new candidates, duly seconded, must reach the hands of the Business Secretary before the 10th of September; and present Members of the Council, desirous of standing for re-election, are requested to intimate the same to the Business Secretary by the same date.

RULES OF THE AVICULTURAL SOCIETY.

As amended June, 1903.

1.—The name of the Society shall be THE AVICULTURAL SOCIETY, and its objects shall be the study of Foreign and British Birds in freedom and in captivity. Poultry, Pigeons, and Canaries shall be outside the scope of the Society. The year of the Society, with that of each volume of the Society's Magazine, which shall be known as *The Avicultural Magazine*, shall commence with the month of November and end on the 31st of October following.

2.—The Avicultural Society shall consist of Ordinary and Honorary Members; and the latter shall be restricted in number to six, and be elected by the Council.

3.—The Officers of the Society shall be elected, annually if necessary, by the Members or Council in manner hereinafter provided, and shall consist of a President, one or more Vice-Presidents, a Business Secretary, a Correspondence Secretary, an Editor, a Treasurer, an Auditor, a Scrutineer, and a Council of Twelve Members. The Secretaries, Editor, and Treasurer, shall be *ex-officio* Members of the Council, and the first three of the Executive Committee.

4.—New Members shall be proposed in writing; and the name and address of every person thus proposed, with the name of the Member proposing him, shall be published in the next issue of the Magazine. Unless the candidate shall, within two weeks after the publication of his name in the Magazine, be objected to by at least two Members, he shall be deemed to be duly elected. If five Members shall lodge with the Business Secretary objections to any candidate he shall not be elected, but the signatures to the signed objections must be verified by the Scrutineer. If two or more Members (but less than five) shall object to any candidate, the Secretary shall announce in the next number of the Magazine that such objections have been lodged (but shall not disclose the names of the objectors), and shall request the Members to vote upon the question of the election of such candidate. Members shall record their votes in sealed letters addressed to the Scrutineer, and a candidate shall not be elected unless two-thirds of the votes recorded be in his favour; nor shall a candidate be elected if five or more votes be recorded against his election.

5.—Each Member shall pay an annual subscription of 10/-, to be due and payable in advance on the 1st of November in each year. New

Members shall pay, in addition, an entrance fee of 10 6; and, on payment of their entrance fee and subscription, they shall be entitled to receive all the numbers of the Society's Magazine for the current year.

6.—Members intending to resign their Membership at the end of the current year of the Society are expected to give notice to the Business Secretary before the 1st of October, so that their names may not be included in the "List of Members" which shall be published annually in the November number of the Magazine.

7.—The Magazine of the Society shall be issued on or about the first day of every month*, and forwarded, post free, *to all the Members who shall have paid their subscription for the year; but no Magazine shall be sent or delivered to any Member until the annual subscription shall have reached the hands of the Business Secretary.* Members whose subscription shall not have been paid as above by the first day of September in any year shall cease to be Members of the Society, and shall not be re-admitted until a fresh entrance fee, as well as the annual subscription, shall have been paid.

8.—The Editor shall have an absolute discretion as to what matter shall be published in the Magazine (subject to the control of the Council). The Business Secretary and Editor shall respectively refer all matters of doubt or difficulty to the Council. The decision of the majority of the Council shall be final and conclusive in all matters.

9.—The Secretaries, Editor, and Treasurer shall be elected for a term of five years, and, should a vacancy occur, it may be filled up by the Executive Committee. At the expiration of the term of five years in every case, it shall be competent for the Council to re-elect the officer for a further term of five years, unless a second candidate be proposed by not less than twenty-five Members of at least two years' standing, as set forth below.

As regards the Council, an election may take place any October should the number of sitting Members and candidates exceed, if only by one, the number of vacancies. Should two years pass without an election, in the third there shall be a general election, as shown below. Should, however, the number of candidates not exceed twelve, voting papers would not be issued.

Candidates for any post must be proposed in writing by one Member, and seconded by one (or more, see above) other Member, before they shall be eligible for election; but this shall not apply to officers willing to stand for re-election to the same office. All such proposals which have been duly

* Owing to the extra pressure of work, the October and November numbers *must* be late.

seconded must reach the Business Secretary before the 10th of September. The Business Secretary shall prepare a voting paper containing a list of the candidates, showing the offices for which they are respectively seeking election or re-election, and shall send a copy of such voting paper to each Member of the Society with the October number of the Magazine. Each Member shall make a cross (X) opposite the names of those for whom he desires to vote, and shall sign the voting paper at the foot, and send it to the Scrutineer, in a sealed envelope, so as to reach him by the 16th of October. The Scrutineer shall prepare a written return of the officers elected, showing the number of the votes recorded for each candidate, and send it to the Business Secretary before the 21st of October for publication in the November number of the Magazine. In the event of an equality of votes, the President shall have a casting vote.

10.—It shall be lawful for the Council to delegate any of their powers to a Committee of not less than three, including the *ex-officio* Members.

11.—The Council (but not a Committee of the Council) shall have power to alter and add to the Rules, from time to time, in any manner they may think fit,—five to form a quorum at any meeting of the Council.

12.—The Council shall have power to expel any Member from the Society at any time without assigning any reason.

13.—Neither the office of Scrutineer nor that of Auditor shall be held for two consecutive years by the same person.

14.—The Scrutineer shall not reveal to any person how any Member shall have voted.

15.—If any office shall become vacant at any time, other than at the end of the Society's year, the Council shall have power to nominate any Member of the Society to fill the vacancy until the expiration of the current year.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case. Domestic poultry, pigeons, and Canaries cannot be dealt with. No replies can be sent by post.

PINTAILED NONPAREIL. (Mr. N. S. O'Reilly). Turned into a small aviary with pair Bull-finches and Bichenofinches; found it dead shortly after. [Concussion of brain due to direct injury to the skull].

Pair CORDON BLEU. (Capt. B. Horsbrugh). Bought last week, turned into greenhouse, not exposed to open air; both died to-day. [Both birds died of pneumonia].

WHITE-THROATED FINCH and GOLDFINCH. (Mr. H. D. Panton). 1st Suddenly became very puffy and gasping for breath. [Acute pneumonia]. 2nd In song day of death, but seeming too fat I transferred it to a larger cage; it immediately began to pant for breath, and began to swell with tympany. I pricked skin in three places, and fearing fit, put it in cold water. It died same evening. [Ruptured blood vessel on brain; bird died of pressure on brain caused by blood clot. Tympanic condition I cannot account for; pricking skin was useless, and putting body into cold water unless head was also immersed might have caused the rupture of the blood vessel. Do not experiment on such delicate little creatures, is my advice to you and others: many a bird is killed by anxiety to do good when the bird might recover by itself].

ROSELLA PARRAKEET. (Miss Alderson). Seemed in perfect health until day of death; had three fits. Could I have done anything for him? [Death was due to apoplexy. A smart aperient is about the best thing to be done if one is suspicious of apoplexy, but am afraid there are usually no premonitory symptoms].

GREY HEN, A; NUTCRACKER, B. (Mr. W. H. St. Quintin). A Seemed quite well until early in the winter, when I lost another of the same brood from fits. The bird now sent seemed heavy and dull. I removed her, carefully fed her with a variety of food but no maize. Found her gasping a day or two ago; when I caught her up she had a fit and died. [The bird was very fat, there being liver disease of some time standing, and recent inflammation of both lungs no doubt causing the gasping. Being in such a weak condition from the diseases mentioned, the excitement of catching up caused heart failure, which was the

immediate cause of death. I should certainly advise keeping the other birds on diet less nutritious for a while]. B Seemed ill on Sunday. I caught it up, but it died in another aviary the same day. [Acute inflammation of the liver caused death. The *post-mortem* appearances you describe were identical with the one I examined: this condition may be caused by either too stimulating a diet, or chill].

GOULDIAN FINCH, A; SHAMAH, B. (Lady Louisa Feilding). A Apparently well on Saturday, very mopey on Sunday, found dead on Monday. [Was much emaciated. Enteritis was cause of death. It was a cock]. B Apparently well on Tuesday evening, found dead on Wednesday morning. Been in outdoor aviary some weeks with Budgerigars, other small birds, and a Red-vented Bulbul. [Bird died of shock caused by external injuries at the back of the head. The Red-vented Bulbul is, I should say, the culprit. I have proved them to be dangerous and very uncertain companions for smaller birds].

VIRGINIAN NIGHTINGALE, hen (Mr. N. S. O'Reilly). In my possession nearly two weeks: appeared well until yesterday, when it seemed mopey; this morning I found it dead. [It was rather relaxed. Inflammation of the bowels caused death].

VIOLET TANAGER, hen. (Miss M. Wilde). Was flying about yesterday in our bird-room apparently quite well. They had built a nest, and were fed on fruit, Abrahams' insect food, etc. [Bird was excessively fat. Inflammation of right lobe of liver; but immediate cause of death was apoplexy].

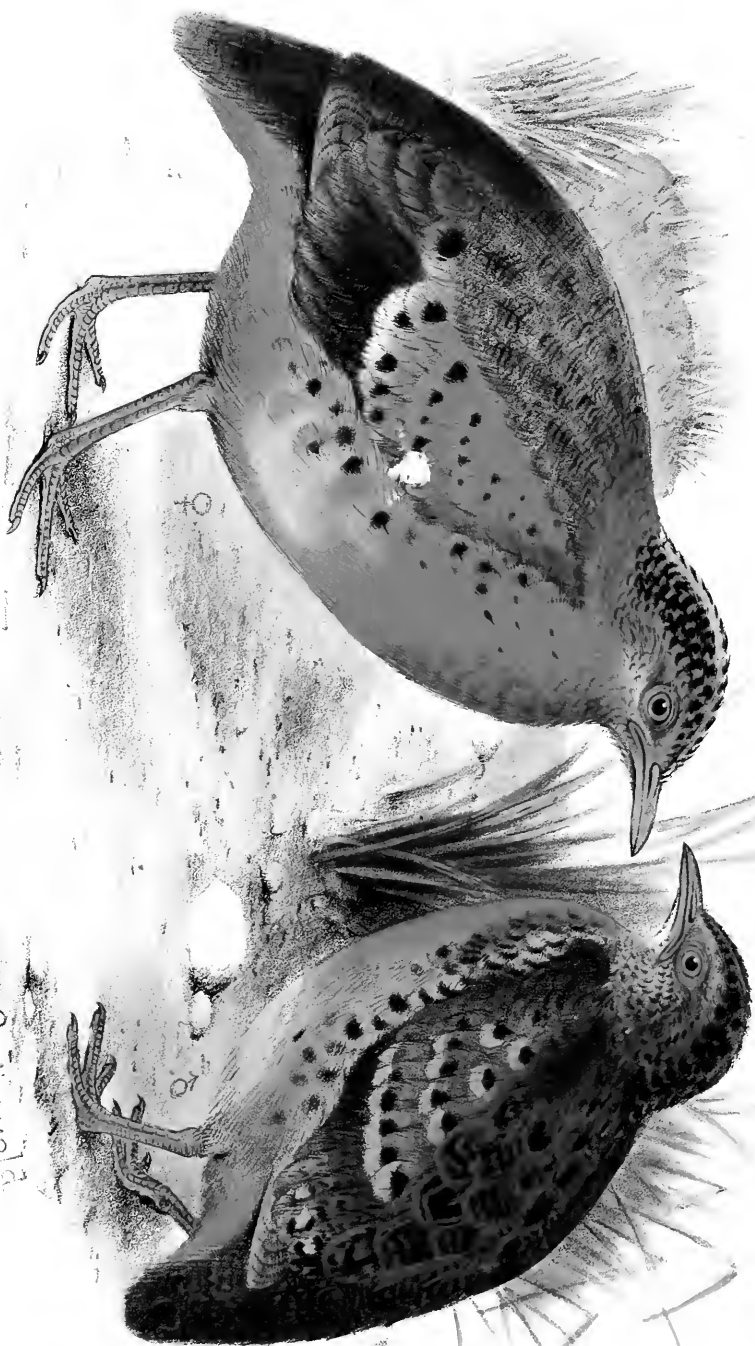
VIRGINIAN NIGHTINGALE, cock. (Mr. N. S. O'Reilly). In my possession 19 days, shewed symptoms of dullness only three days ago; fed on canary, millet, ants' eggs, banana, orange, apple, mealworms, sunflower-seed, and a little hemp. [Your bird died of apoplexy, and I think your food was too stimulating for him. I know these birds are fed on a large proportion of insect food, sunflower-seed, and hemp. I have never lost one although I have had many, and have fed only on canary, millet, hemp, and fruit. They of course catch a few insects out of doors.

BULLFINCH. (The Duchess of Bedford). [Cause of death was exhaustion from want of food. The feeder being accidentally turned round was most unfortunate, but there was not a trace of food in the body].

BUDGERIGAR. (Miss Appleton). Bird found dead in nest on four eggs. [Death was due to inflammation of the bowels caused by constipation].

ARTHUR GILL.





GREATER BUTTON-QUAIL, ♂, ♂.

Turnix tanki.

From living specimens in Mr D. Setchsmith's possession.

Avicultural Magazine,

BEING THE JOURNAL OF THE
AVICULTURAL SOCIETY.

New Series.—VOL. I.—No. 10.—All rights reserved.

AUGUST, 1903.

ON THE BREEDING IN CAPTIVITY OF *TURNIX TANKI*,

WITH SOME NOTES ON THE HABITS OF THE
SPECIES.

By D. SETH-SMITH, F.Z.S., M.B.O.U.

The genus *Turnix*, which appears to occupy a position between the true Gallinaceous birds and the Rails, comprises about twenty species, popularly known as "Hemipodes," "Bustard-Quails," or "Button-Quails." They range from Spain and Sicily, through Africa, Madagascar, the Indian Archipelago, China and Australia.

The Hemipodes are characterized by the entire absence of a hind toe, and by the female being, in most cases at least, decidedly larger and more brightly coloured than the male; and it is from a comparison of the *females*, not the males, that specific distinction can be ascertained.

As regards the nesting habits of these small birds, very little has been observed in a wild state, but it has been supposed, and in the case of one species at least, proved, that the incubation is performed by the male.

Regarding the one species whose nesting habits have been observed—the Black-throated, or Common Bustard-Quail (*T. taigoor*), Mr. Hume gives the following very interesting notes:—

"The most remarkable point in the life history of these Bustard-Quails is the extraordinary fashion in which amongst

them the position of the sexes is reversed. The females are the larger and handsomer birds. The females only call, the females only fight—natives say that they fight for the males, and probably this is true. What is certain is that, whereas in the case of almost all the other Game Birds it is the males alone that can be caught in spring cages, etc., to which they are attracted by the calls of other males, and to which they come in view to fighting, in this species no male will ever come to a cage bated with a male, whereas every female within hearing rushes to a cage in which a female is confined, and if allowed to meet during the breeding-season, any two females will fight until one or other is dead, or nearly so.

“The males, and the males only, as we have now proved in numberless cases, sit upon the eggs, the females meanwhile larking about, calling and fighting, without any care for their obedient mates; and lastly, the males, and the males only, I believe, tend and are to be flushed along with the young brood.

“Almost throughout the higher sections of the animal kingdom you have the males fighting for the females, the females caring for the young; here, in one insignificant little group of tiny birds, you have the ladies fighting duels to preserve the chastity of their husbands, and these latter sitting meekly in the nursery and tending the young.”

I was very glad indeed to see, in a well-known bird-dealer's shop, in October last, a cage containing several Bustard-Quails; for it is very rare for any species of *Turnix* to be imported alive into this country. The consignment referred to consisted, for the most part, of *Turnix dussumieri*, the Little Bustard- or Button-Quail; but I noticed also two fine females and one male of the rarer and more handsome *T. tanki*,—the Greater Button-Quail, or Indian Bustard-Quail. There were also two males of the Black-throated or Common Bustard-Quail, *Turnix taigoor*. I left the shop with the three examples of *T. tanki*, a pair of *T. dussumieri*, and a single male of *T. taigoor*. *T. tanki* is certainly the rarest as well as the most handsome of the three species; it has been represented in the Zoological

Society's collection on one occasion only, a pair having been presented by Mr. E. W. Harper in 1901, which unfortunately lived but a very short time.*

In a wild state it occurs throughout "the Peninsula of India, and east of the Bay of Bengal as far south as Tippera." (*Ogilvie-Grant*).

It is from observations I have made of my examples of this species that I am about to set down a few notes that may, I hope, be of interest and value to those who study this extraordinary and little-understood group of birds.

Mr. Ogilvie-Grant, of the British Museum (Natural History), is undoubtedly the first authority of the present day on the Game-birds, and he is the author of a most able monograph of the genus *Turnix*, which was published in the *Ibis* of 1889 (pp. 446-475). One of the conclusions he has arrived at however in studying this group is, that the characteristic adornments of the females, such as black throats (as in *T. taigoor*) and rufous nuchal collars (as in *T. tanki*), "are not seasonal or nuptial plumages, as supposed by some authors, but denote maturity, and are found at all seasons in fully adult females."

It will be seen from the coloured illustration that appears with this, that in *Turnix tanki* the rufous nuchal collar is a very well-marked feature of the female, and my two examples of this sex, when obtained on the 24th of October last, were in perfectly full colour. However, as the winter approached they commenced to moult, and *the collar was completely lost*, the plumage becoming apparently similar to that of the male, though I did not handle the birds to examine them minutely. The two females at this time exactly resembled some specimens in the series at the Museum which are labelled "immature," but which, I am now led to suppose, are really adults in winter plumage. Another fact which tends to prove this conclusion to be correct is, that a young female, whose history I am about to relate, has developed a perfect rufous nuchal collar at the age of six weeks.

* Since the above was written two more females of *T. tanki* have been received by the above-mentioned dealer.

In March the females gradually regained their rufous collars, and, at the same time, became rather spiteful towards one another, and had to be separated, one being placed with the male, in an aviary about twenty feet long by ten feet wide, in which a temperature approaching 60° Fahr. was maintained.

The pair, as a rule, kept fairly close together, but otherwise appeared to take very little notice of one another. As the days lengthened they seemed to become somewhat interested in a certain corner, the warmest place in the aviary, close to the boiler connected with the hot-water pipes, and just by the door,—perhaps the worst place they could select for a nest, as it was impossible to enter the aviary without disturbing the sitting bird. The hen would sometimes squat in this corner with her breast on the ground and her tail pointing upwards, and made a peculiar soft clucking noise. The cock would then go and take his turn in the same corner, the hen having moved out. At this time the hen would often be seen standing rocking her body backwards and forwards in a peculiar manner, but I saw nothing approaching actual nuptial display by either sex, in fact they seemed to regard one another almost with indifference except when I threw a mealworm to the hen when she would generally (though not always by any means) hold it in her bill, and stretching out her body, remain motionless, glancing sideways at the male, until he ran up and took it. Probably she actually called him, but I could detect no sound. At any rate, she presented tit-bits to him in precisely the same way as he, later on, presented food to his chicks.

Just as the males of other gallinaceous birds will pick up dainty morsels and gallantly present them to their wives, here we have a case in which the order is exactly reversed, the females unselfishly presenting the most attractive morsels to their husbands.

On April 24th a slight nest of hay was observed in the above-mentioned corner, and on the following day I discovered one egg in the nest. On the 27th a second egg was laid, and a third on the 28th, on which day the *male* commenced to sit, and, although the nest was in a perfectly open place, and I was

obliged to disturb him each morning as I went to feed the birds, he continued his task in a most praiseworthy manner and, on May 10th, hatched all three eggs, incubation having been completed in the incredibly short space of *twelve days*.

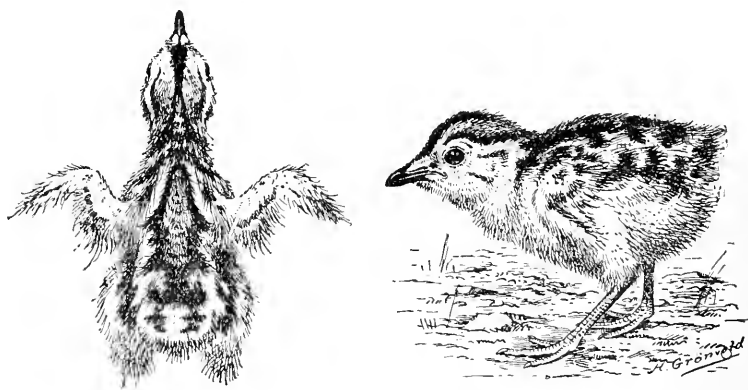
Here is surely another fact which stamps this genus as one of the most remarkable in the avian kingdom; that young, as well developed in every way as those of the true Quails and other Game-birds should be produced in about half the time that those birds occupy in incubation. The Painted Quails (*Excalfactoria*), be it remembered, take 21 or 22 days to hatch, and yet they are about equal in size to, and their young are no better developed at birth than those of, the birds now under notice.

From the day she laid her third egg the female appeared to take no notice whatever of the nest, and even when the young were hatched, apparently ignored the presence of both her mate and offspring. In fact I found that she ate most of the food that was provided for the chicks and so shut her in a separate place.

The little cock took the greatest care of his charges, brooding them most tenderly, and attacking any living creature, including myself, that might approach them too closely. He would pick up minute insects and hold them in his bill until the chicks came and took them from him, and, for the first day or two the chicks, so far as I was able to observe, never picked up food for themselves.

The three chicks progressed favourably for the first two or three days, but it was, unfortunately, almost impossible, so cold had the weather been, to find a sufficient stock of the right kind of insects, and artificial food of all kinds was rejected. Fresh ants' eggs would have answered the purpose admirably, but there were none to be had; small gentles would have done, but they were not to be obtained either. I had decided to arrange for a stock of these, but I had put the probable period of incubation at about three weeks, and as they arrived in twelve days none were ready. I dug over the best part of the garden in search of insects; I swept the hedgerows with an entomologist's sweeping net, but, with the exception of finding a

few aphides and flies, to no effect. The consequence was that, at the age of three days one chick died, and a second followed its example on the following day. These two, which were admirably mounted by Mr. Charles Thorpe, of George Street, Croydon, have enabled Mr. Grönvold to give us the figure which appears below. In colour they were mottled brown, but without very distinct markings. They are now reposing in the Bird Gallery of the Natural History Museum at South Kensington.*



Turnix tanki, 4 DAYS OLD. NATURAL SIZE.

On May 20th, the weather having improved, the parents and the one surviving chick, were put into a small outside aviary in which grass was growing, and here the youngster grew apace. At this date its plumage presented a spotted appearance, especially on the sides, but with the exception of the black stripe on the head, which is clearly shown in the illustration, it presented no very conspicuous markings. On May 28th the light irides of the adults were visible, the eyes having previously appeared perfectly black. On June 2nd, I noticed a *distinct reddish tinge* on the nape, and as I write (June 27th) this young bird, which is a female, is equal in size to her mother, and may now, at nearly seven weeks old, be said to be in perfectly adult

* The figures have been drawn from the mounted specimens, and are believed to be exactly natural size, but they give an impression of a decidedly larger bird than is really the case.—D. S.-S.

plumage, with the rufous collar almost, though perhaps not quite, as distinct as that of the old female.

The weather of the first half of June was so extraordinarily wet and cold that I thought it advisable to put these birds back into the warm aviary, especially as they never seemed to care much for the grass. The change appeared to please them, and they soon began to visit their old nesting-place. On June 20th I noticed that a nest had been made. This, however, was abandoned for another site near by, where, on the 22nd, I discovered a more perfect nest composed entirely of hay, which they must have carried some distance. On the 24th it contained an egg, a second being laid on the 25th, and a third on the 26th. On the 27th, the day on which I am writing, the male has commenced to sit. I may mention that the eggs are creamy white, spotted with innumerable buff and grey spots.

From my observation of my specimens of *Turnix tanki*, as well as a pair of *T. dussumieri*, I am led to the conclusion that these birds do not care much for long grass. The difference between these and the little Painted Quails (*Excalfactoria*) is very marked in this respect; the latter makes tunnels through the long grass in all directions, and darts through these like lightning when alarmed; but the Hemipodes do not seem to be at home in long grass, they apparently prefer the open sandy ground, with patches of short rough grass and such like growing here and there. They are extremely fond of dusting themselves in the sand.

The second hen of *T. tanki* has been out in a large aviary with the male *T. taigoor* since May, but the grass and undergrowth is so thick that I rarely see either of them.

The call-note uttered by the Hemipodes seems to be much the same with all,—a soft booming sound which is more or less ventriloquial. The female utters this note far more frequently than the male, and I am not perfectly sure that he calls at all, but I believe he does occasionally. This note may almost be called a “coo”; I have frequently mistaken it for the coo of the Bronzed-winged Pigeon in the distance. Some writers have likened it to the distant bellowing of a bull, and the Mediterranean

form, *T. silvatica*, is known as "Torillo" or "little bull." The note is absolutely unlike that of any other gallinaceous bird, so far as I am aware.

[On the first of July I obtained a female of *T. taigoor* and placed her in the large aviary with the male of this species, and I have since, on several occasions, heard the call-note, evidently uttered by the female only, as stated by Hume. It is somewhat different to that of the other two species I have, being more like a prolonged "purr;" it might, in fact, be described as between a "purr" and a "coo."

The male *Turnix tanki* hatched all three eggs, either in the night of July 8th, or very early on the morning of the 9th, the period having been, as before, about twelve days. One of the chicks was weak from the first and died the day after birth; but the other two are progressing splendidly on a diet composed chiefly of living ants' cocoons and small gentles. When three or four days old they were noticed to pick up small particles of yolk of egg as well as preserved ants' eggs occasionally, but they cannot do without live food].

THE LATE RAINS AND THEIR EFFECT ON BIRD LIFE.

By E. G. B. MEADE-WALDO, F.Z.S., M.B.O.U.

All dwellers in the Southern and Eastern half of England who are interested in ornithology and aviculture must have suffered more or less directly from the disastrous rains of the month of June. The almost unprecedented deluge that continued, almost without intermission from the 9th to the 21st, will leave a mark that it will take more than one good breeding season to blot out. In addition to the heavy and continuous rains, we also suffered from a phenomenally low temperature, culminating on the 21st inst., when for *forty-eight* hours previously our maximum temperature was 48°, our minimum 28°, and our rainfall 1·23. The effect of this last spell of bad weather was to practically annihilate the nests and young broods of many birds. In our

nest boxes at home I found numerous broods of young dead. Whole broods of Tits starved and perished from cold. Not a brood here and there, but some dozens; in some cases half the brood had flown leaving half dead in the nest. I found but one brood of Tits gone clean away, and they were a brood of Coal Tits in a box in a dense cedar. Nuthatches suffered in a similar way in many cases; the mud lining to the roof of the box had fallen in (melted from the wet) and buried the young. I also saw several nests of the Nuthatch in natural situations in which the same thing had happened. I found two broods of young Wrynecks perished: one in a box, the other in a hollow spout of an apple tree. Young Jackdaws perished in numbers, and many might be picked up hopping about, having left their flooded and breeding holes before they could fly. Stock Doves also suffered severely.

In two Barn Owls' nests I found but two young ones in each, standing on the dead bodies of their brethren. These evidently had starved owing to their parents being unable to hunt in the continuous rain. I also picked up two fine young Little Owls dead from the same cause, under a nest in a rock, where they must have been perfectly dry. Another brood of four in a hollow apple tree were all drowned. Even Waterfowl could not stand against the deluge and floods. Twenty out of twenty-one young wild-bred Pochards on a mill pond were all carried over the hatches and whirled away on the flood. House Martins, of which for some reason we have an unusual number this season, lost *all* their nests, scores of them having fallen from the buildings, but they fortunately will not suffer, as they are all hard at it again. Partridges as a crop have practically vanished, every known sitting nest being forsaken even when on the point of hatching, scores with the eggs "billed." In cutting vetches and clover since the rains many old birds are found dead on the nests, also many sitting Pheasants, but early broods of Pheasants did not suffer, and locally, at any rate, hand-reared Pheasants did extremely well. Our own Pheasants on high and very exposed ground thrived wonderfully. In my aviary a Chinese Painted Quail was drowned out of the nest, and on the 21st I lost a pair of young Pin-tailed Sandgrouse a fortnight old.

These, whose natural home is the burning desert, had withstood the whole deluge, and until the last fall had thriven, and I think they really failed through the impossibility of procuring ripening seeds of their food plants owing to the weather. The rapidity with which the old parents console themselves and "begin again" is extraordinary. When the hen laid her first clutch this year I took the eggs away after they had sat on them for two days, as I felt sure there would be no food when the young hatched, owing to the backwardness of the season. Nevertheless she was *sitting again on a full clutch of three eggs on the eighth day after I took the eggs*. Two of these eggs *hatched*. On the *sixth* day after losing her young ones, she was *sitting again on three very fine eggs, all of which are fertile*. How is this managed!! And if birds in an aviary can reproduce their species so rapidly under adverse circumstances it goes far to prove how such birds as the Peewit, who are systematically robbed of their eggs, well maintain their numbers in a state of nature. The Plovers moreover are *not* very distantly related to the Sandgrouse. Even the Wild Peewits were affected by this weather. An old Peewit brought her young ones in amongst the farm buildings on our home-farm, and reared her young ones amongst coops of young chickens and ducks, after a short while taking no notice of human beings, beyond running a short way and giving vent to a plaintive Pee-e-wit. The young ones gave up hiding, and used to run a short way *pretending* to pick up food in an unconcerned way. Not only hole-breeding and ground-breeding birds suffered. Whole broods of Long-tailed Tits, ready to leave the nest, perished, also broods of Goldcrests. Most nests of Hedge Sparrows contained some dead young, as did also those of Greenfinches and Chaffinches.

Even the well-drained nests of the Jay were not proof against this cruel storm. The broods are very small, mostly two or three in place of the usual five or six. I don't suppose that my experience of the effect of this weather on our wild birds is at all singular, and it would be interesting if other aviculturists and ornithologists who lived in the afflicted area would also give us some account of what the effect has been in their country, and in their open aviaries.

EGGS OF SERIN-FINCHES.

By A. G. BUTLER, Ph.D.

I should like to call attention to the apparent variability both in the number and colouring of the eggs of the Grey and Green Singing-finches (*S. leucopygius* and *S. icterus*) and to invite those members with whom these birds have gone to nest, to give their experiences.

It is a good many years since the Grey Singing-finch first went to nest in one of my birdroom aviaries, building a neat little nest on the floor of a Hartz-cage, but dying on the nest before laying its second egg: since that time no perfect nests have been built in any of my aviaries until this year. Early in April several attempts were made by a hen to build in a dead cypress in my long-covered aviary, but in each case the nest was destroyed before its completion by Zebra-finches.

In May the indefatigable hen Singing-finch tried to build in a swinging seed-tin; and, although nearly the whole of the material was stolen, so that only a little pad of flue and feather remained at the bottom of the tin, she laid three eggs thereon, and sat for about a fortnight; she was, however, extremely nervous; leaving the nest whenever the aviary door was opened: all the eggs proved to be addled.

In June a nest was successfully completed in the dead bush before mentioned: It is a neat little deep cup-shaped nest, resembling that of our Reed-Warbler in shape, but more woolly and much smaller: again three eggs were laid, the hen sitting, but still flying nervously off on the least notice being taken of her.*

In Shelley's Birds of Africa, Vol. III., p. 217 it is stated that Heuglin found a nest on the Blue Nile which contained three eggs which were pale greenish grey, spotted at the thick end with brownish red and dusky brown.

* After sitting about a week she died and I was on the point of taking the nest to preserve it and the eggs for my collection when I noticed the cock and a second hen nervously approaching: on leaving the aviary she went on the eggs. My friend Mr. Seth-Smith visited me shortly afterwards, and on looking into the nest observed two newly hatched young: these however disappeared two or three days later, having probably died.—A.G.B.

Dr. Russ, in his account of the nidification of this bird, states that the laying consists of four to five eggs, pale blue, at times greenish, finely speckled, and spotted with reddish or brown. Did Dr. Russ make a note, at the time when he bred the species, of the number and colouring of the eggs; or did he slightly modify Heuglin's account of the colouring, and take his number from what is known to be most usual among Serin-finches? It is interesting that Heuglin's nest should have contained three eggs only, and that both of the nests built in my aviary this year should have been limited to that number. In any case, it proves that the number for a normal clutch should not be put down as "4 to 5"; if the higher number is ever reached, the normal number should stand as 3 to 5: this is a point upon which I should like additional information.

Again, as regards the colouring of the eggs, mine have all been pure white; the solitary egg in my first nest being unspotted.* In the two later nests the eggs have been uniform in character, being finely spotted and speckled at the large end with pitchy black: they remind one a little of some eggs of the Cliff-Chaff, only they are longer ovals and the spots on them are smaller. Here again I should like to hear the testimony of other breeders.

As regards the Green Singing-finch, I have had nests built about five times, mostly in boxes hung upon the wires of my aviaries: in each case I have seen the eggs while the bird was off; and in every instance the eggs have been pure creamy-white and immaculate, or so nearly so that, without taking them out and examining them under a lens, no markings could be distinguished: they varied in number from four to six. In every case they disappeared shortly after the completion of the clutch, being probably eaten by the cock bird.

According to Shelley, the number of eggs of this Serin is three to five, of a pale bluish ground-colour, sparingly spotted towards the larger end with pale reddish brown.

Dr. Russ says that the laying consists of four eggs, yellowish white, for the most part spotted with buff. Mr.

* When partly incubated, they might assume a greyish tinge.

Catleugh, who bred the species in 1884, does not describe the colouring, but gives the number as five.

Is it possible that captivity can make so great a difference in the colouring of eggs as to change them from bluish, spotted with reddish-brown, to creamy-white, sometimes spotted with buff? I think it more probable that the eggs obtained in Africa belonged to a different, though perhaps nearly allied, bird. In any case the number of eggs would have to stand as 3 to 6, not 3 to 5,

More information is required upon this head.

REVIEWS.

“PARRAKEETS.” *

Mr. Seth-Smith publishes another part, from my point of view the most interesting and valuable we have yet had. It would be worth while to get the book for the sake of this part. For one thing out of the four plates given two are invaluable, one of the Red-vented Blue-bonnet, and the other of the Golden-Shoulder. Let me confess my ignorance! The Red-vented Blue-bonnet is a revelation to me. I thought I knew something about Parrots, but I did not know such a bird existed. Now I shall never be happy till I have seen a live one. I fear that we shall be many years before that is imported, but the other plate, that of the Golden Shoulder is likely to be of direct use, because that bird does come—and only rarely—the plate therefore is just one of those that is a real “boon and a blessing” to avicultural men.

Then again, Mr. Seth-Smith gives directions by which the unlearned can distinguish between two species so alike as *P. zonarius* and *P. semitorquatus*. These are just the things which make a book of use.

The present section is entirely confined to Australian Parrakeets of the Broad-tailed family. This is probably the most popular section there is. Their comparative freedom from

* *Parrakeets, a handbook to those species kept in Captivity*, by D. SETH-SMITH, F.Z.S., M.B.O.U. Part V. London: R. H. PORTER.

shrieks, their beauty, their hardiness, and their readiness to breed in confinement, all commend them to the amateur. So ready are they to breed, that Mr. Seth-Smith's record of various hybrids, including one so strange as that between a Rosella and a Cockatiel, is not the least interesting part of this section.

In some of his quotations from other works, once or twice the fact is dwelt upon that the *Platycerci* not only eat seeds, but also *insects*. Does this help us at all to an explanation of feather-eating. I have not so extensive an experience of Parrot-keeping as many of our members must have, but I have only found this trick amongst the *Psephoti* and in a *Nymphicus*. Are they seeking for some substitute for insects?

I have a pair of *Brotogerys tirica* lately given to me, of which one was a feather-destroyer. But as I found feathers in the cage I think the culprit was a feather-picker and not a feather-eater. And as the feathers are now coming, it was probably owing to wrong diet. But if *Platycerci* are accustomed to some insect food, they may find the want of it.

I conclude by again saying that this section of *Parrakeets* should be got by everyone who proposes to keep any of that most charming section, the *Platycercinæ*.

F. G. DUTTON.

ST. KILDA.*

There are few spots in the British Islands so interesting to the ornithologist as St. Kilda. Here the Fulmar has its headquarters, and its habits in the nesting season may be observed as at no other place. The Fork-tailed Petrel too is plentiful, and a form of the common Wren is peculiar to the Islands. Many of the common sea-birds are here extremely abundant, and the islands form the richest of feasts to those who delight in the study of sea-birds in their breeding haunts.

St. Kilda and its Birds is the title of a most interesting lecture delivered by Dr. J. Wigglesworth before the Liverpool Biological Society, and now printed in book-form and beautifully illustrated by photographs.

* *St. Kilda and its Birds*, by J. WIGGLESWORTH, M.D., F.R.C.P. London: R. H. PORTER.

The author gives a most interesting account of the inhabitants of St. Kilda, their life-history and mode of living. Of the birds a complete list is given together with a short account of each species. Perhaps the most interesting bird is the Fulmar which provides the chief form of livelihood to the inhabitants. On the 12th of August in each year the great raid on the Fulmars begins. The young are taken in immense numbers. Their feathers help to pay the rent, the oil extracted from them forms the sole method of lighting possessed by the inhabitants, besides a considerable quantity of it being sold; and the bodies form a valuable article of diet.

HINTS ON CAGE-BIRDS.*

Dr. Butler, our much esteemed Honorary Correspondence Secretary, is so very well known to our members, and the work he has done in the cause of scientific aviculture so highly appreciated, that a handbook by him giving hints on aviculture in general is certain to meet with a good reception.

"Hints on Cage-birds, British and Foreign" was the title of a series of very useful articles that appeared a short time ago in the *Feathered World*, and that these should have been made permanently useful by being republished in book form is most satisfactory. The author goes thoroughly into almost every question that is likely to confront the tyro in aviculture, and to the latter this handbook can be most heartily recommended. It is profusely illustrated, chiefly from photographs, some of which are very good, while others might with advantage have been omitted.

FANCY WATERFOWL. †

This is another of the useful handbooks published at the Office of the *Feathered World*, the author being our valued member Mr. Frank Finn.

* *Hints on Cage-birds, British and Foreign*; by A. G. BUTLER, Ph.D., F.L.S., F.Z.S., &c. "The Feathered World" Office, 9, Arundel Street, W.C.; Price 1/9 (paper). 2/3 (cloth).

† *Fancy Waterfowl*, by FRANK FINN, F.Z.S. London, *Feathered World* Office, 9, Arundel Street, W.C.

Waterfowl do not appear to have been studied by aviculturists to the extent to which they deserve, seeing how seldom they are mentioned in this Magazine; and Mr. Finn deserves the thanks of aviculturists generally for having placed the result of his knowledge and experience of this attractive and beautiful family at their disposal.

This little book treats of several rare species, as well as of all the commonly-kept forms, and their domesticated descendants. It contains numerous illustrations, mostly by Mr. Lydon in his well-known style, but a few are direct reproductions from photographs, and two of these (on pp. 25 and 29) are particularly interesting.

CORRESPONDENCE, NOTES, ETC.

GREY PARROT BITING ITS FEATHERS.

SIR,—I am anxious to obtain advice about my African Grey Parrot which I have had more than six years, during which time he has had perfect health in every way. Last Wednesday afternoon he suddenly commenced plucking his plumage. He does not pull his feathers out but bites the tips off and throws them down on to the bottom of the cage. He has completely ruined his plumage and looks dreadfully rough. He always looked so beautiful before. I feed him on ordinary parrot food and boiled Indian corn as directed by the lady from whom I bought him. I gave him old reels of cotton and a stone to play with and bite, but nothing stops him biting his feathers. I should be much obliged if you could let me know of any remedy for this habit. Perhaps he has got insects and you might inform me what to do with him in that case.

WALTER BURTON.

The following reply has been sent to Mr. Burton :

I believe the only effective cure for feather-plucking in parrots, would be to turn them loose in a large outdoor aviary: but an aviary for a Grey Parrot would have to be as strongly built as the Monkey-cages at the Zoological Gardens.

There is not the least doubt that the cause of your bird ruining its plumage is, that it has been improperly fed for more than six years. If it had not been a very healthy and vigorous bird, feather-plucking would have been resorted to years ago: it is the invariable result of using so-called "Parrot-food," sooner or later.

If you examine the seeds, you will probably find hard maize, chillies, monkey nuts, prairie-grass, pumpkin, marrow or melon-seed (which perhaps may be almost as nutritious as cardboard), red-millet (I believe generally used for Game-birds), and dirt.

As a Grey Parrot ought to have wheat, dari, hemp, and canary, with plain dry biscuit, and fruit; walnuts, crack-nuts, or green peas when in season; it will be evident to you how suitable such a hap-hazard collection of seeds as is usually sold under the all-embracing name of "Parrot food" must be. I know that it is a cause of disease and death to many hundreds of parrots and parrakeets yearly; but the *name* sells it.

A. G. BUTLER.

BRAZILIAN HANGNEST.

SIR,—I am wanting to try a Brazilian Hangnest, but am doubtful about where I could keep it. If loose in the birdroom would it be likely to interfere with a Shamahi, or a Violet Tanager, who are loose at times; or would it be safe in an outdoor aviary, 12ft. by 10ft., with a Mocking Bird and other birds, the smallest being Pintailed Whydahs; or in an indoor aviary 6ft. by 4ft., with a pair of Alexandrine Rock Parrakeets? I should prefer the bird room, if possible, with a cage of its own, but not unless it could be let loose in the room in the day time.

R. H. WILMOT.

The following reply has been sent to Mr. Wilmot.

I am afraid the safest thing for a Hangnest is a large flight cage and solitary confinement. It might do with the Mocking bird; though if it came to a fight, I think there can be little doubt that the larger bird would go to the wall; but with small finches like Pintailed Whydahs, there can be little doubt that a Hangnest would be a dangerous associate.

To put it with powerful Parrakeets would be equally dangerous for the Hangnest.

A. G. BUTLER.

DEMOISELLE CRANES.

SIR,—About four weeks ago one of my Demoiselle Cranes laid an egg—I have five Cranes in a large covered aviary (all wire) in which they fly about. As I was away from home my keeper took the egg and put it under a large Barn-door Fowl, as well as some Muscovy Duck eggs. The hen has been sitting as closely as possible, and she will probably hatch out presently, and certainly before I can receive answers to the following questions in the *Avicultural Magazine*, so will you kindly inform me how long incubation lasts with these Cranes, and what I ought to feed the youngster on if it hatches out. My birds have never laid before.

HENRY FOTHERGILL, *Major*.

The following reply was sent to Major Fothergill:

My young Demoiselle Cranes hatched on the 27th and 28th days after

the old bird commenced to sit. The first day was spent in, or close about, the nest. But, on the second day, the parents led the two young up a bank on to the level part of the paddock, and commenced to fetch food (flies, &c.) to the young, which received each insect from the old bird's bill. At this time the young bird seemed quite incapable of picking up anything off the ground. It was not till the 12th day that I saw the young attempt to feed themselves, and they did very little in this way till the 17th day, when I saw them pick up for themselves a few mealworms which I threw to them. Therefore I think it may be taken that, for a fortnight at least, your young Crane, if hatched, will not be capable, even if food be before it, of supplying its own wants. I should suggest that, after the first day, the hen be turned loose with it into some sweet orchard or paddock, where there is some long grass, and in which she may find the insects which she will perhaps capture and hold for the young bird. Some mealworms and very small clean earthworms might be given several times a day. The difficulty will be to tide over the first fortnight. After that I should expect no great difficulty. As soon as the young Crane can pick up its food, scalded Spratt's meal, finely chopped raw meat, and yolk of egg should be given; and at the same time plenty of range over clean ground, where it will find insects for itself. Wishing you all success. W. H. ST. QUINTIN.

NESTING OF THE RUBY-THROATED HUMMING BIRD.

The following cutting is from the *Field* of July 4th, 1903:—"About the middle of May last year a pair of Humming birds built their nest in a large honeysuckle which partly covers one side of my house. The nest was not more than 2ft. from a window much darkened by the creeper, and in due course contained two eggs. The ruby-throated owners gradually lost all shyness. During incubation the hen bird amazed us by her frequent and prolonged absences, lasting occasionally more than an hour. On each return the little creature would dart down at full speed, never settling on twig or leaf but "plumping" right into her nest, and keeping her brilliant eyes fixed on those watching her. In exactly twenty-one days two young ones, much resembling spiders, appeared. Again the prolonged absences occurred. So far as we could judge, intervals of about two hours elapsed before the bird's return, always at the top of her speed, and luckily for us, invariably announcing her arrival in the very audible manner of all Humming birds. The bills of the young for two or three days looked much like the beaks of other small birds, then they visibly lengthened from day to day. During the feeding process the parents appeared to disgorge a tiny pellet (honey and microscopic insects presumably), which was held in the tips of their long curved bills and then thrust down the throats of their young. The latter thrived and soon appeared to out-grow the tiny nest, which, by the way, was built largely of my wife's hair combings, plentifully decorated with silver lichen, such as the Chaffinch uses for ornamental

purposes in England. When at last the "Hummers" were about ready to fly a friend unfortunately struck the nest with a stream from a garden hose, and that was the last we saw of them.—J. W. CREIGHTON (New Westminster, British Columbia)."

THE YELLOW-RUMPED PARRAKEET.*

SIR,—I am sorry to inform you that, on looking in the nest to-day, I found the two young Yellow-Rumps dead. I cannot understand the cause, the old ones looked after them well, and there was seed in their crops. On dissection they appeared to be as healthy as possible, but very small; they were only just dead, and about three weeks old, but they were not more forward than other birds I have had a week old. There were also two unfertile eggs, so I suppose the old ones are weak, although they look as well and healthy as can be. The eggs were very small, no larger than Redrumps. Perhaps they were disturbed when the eggs were being laid. I hope better luck next time, they may possibly lay again this year.

WM. R. FASEY.

YELLOW SPARROWS.

SIR,—I have a pair of birds, the identity of which I do not know. Will you tell me what they are? They are about the size of Silverbills, but I think more slender in figure; head, breast, under parts, and under part of tail, *pale* yellow; wings and tail brown with Sparrow-like markings.

The head of one more deeply shaded than the other, so I suppose they are cock and hen. They have rather a Sparrow-like look, but they hang on to the wires of the cage something like Tits. I expect they are not uncommon, but I can't find them in the books.

They seem to eat very little, chiefly white millet; they do not seem to touch the canary seed, and are not keen on spray millet, although they eat a little of the small Indian millet.

I give Abrahams' food and a little yolk, but if they eat any it is very little. They like mealworms, but I don't know if it is right to give them. I should be glad to know what they are and how to feed them. They are pretty little birds, but not gay. The beak is more like the Indigo-bird I think than any other I know.

E. E. WEST.

The following reply has been sent to Miss West:

I suspect that the birds are Yellow, or Golden Sparrows† (*Passer luteus*): you do not say whether they were received from Africa or not; but if they are what I suppose they are natives of N. Africa.

* See page 301.

† The name of "Golden Sparrow" should, we think, be confined to *Passer euchlorus*, of Arabia, the Abyssinian *P. luteus* being termed the "Yellow Sparrow."—ED.

Dr. Russ says that this is the most beautiful of all Sparrows; at the same time is more pleasing, gentle, and peaceable, than any of the larger forms. It has been bred in Germany.

A. G. BUTLER.

THE RED-MANTLED PARRAKEET.

SIR,—In your description of Mr. Fasey's aviaries, you add that you wish he would prove the origin of *Platycercus erythropeplus*. Mr. Cocksedge, in his aviaries at Beyton, bred two fine Red-mantled Parrakeets from a cock Pennant and a hen Red Rosella. These nested and hatched two young ones, but they died when a few days old.

The old birds were shown at the Palace Show and awarded first prize. They were described by Canon Dutton in the *Avicultural Magazine*, and their great rarity commented upon.

They passed into my possession and I had them some time, but I parted with them at the end of last year. I have had frequent nests of this cross in my aviaries. This year two, but in only one case were the eggs fertile, but the young birds (2) were killed by a weasel about two weeks after they left the nest.

MARIAN JOHNSTONE.

[We are much obliged to Mrs. Johnstone for her interesting communication, which proves conclusively that the so-called "Red-mantled" Parrakeet is, as was supposed, merely a hybrid between *Platycercus elegans* and *P. eximius*.—ED.]

BREEDING ROCK-PEPLERS AND BARNARD'S PARRAKEETS.

SIR,—My Rock-Peplers have hatched, and I expect the young to fly any day; they make a great deal of noise and there seem to be several of them.

My Barnards had three fine young birds, and the hen is sitting again.

MARIAN JOHNSTONE.

GOULDIANS.

SIR,—May I trouble you to kindly give me a little information *re* Gouldians.

I have a Red-faced cock paired to a Black-faced hen, and they have been sitting on five eggs since Sunday the 21st June. When may I expect them to hatch?

When due to hatch, I propose giving them dried yolk-flake and flowering grass, besides their usual seeds; is there anything better? Would it be any advantage to scald some canary and Indian millet for them? they eat chiefly the small Indian millet.

They are in a small cage; and the nest is in a cocoa-nut husk, and built of grass I gave them to pick the seed off.

CHAS. P. ARTHUR.

The following reply was sent to Mr. Arthur:

When not spoiled, Gouldians are the most simple feeders imaginable, and seem to rear their young (from the crop) on hard seed only.

I most strongly advise you *not* to give egg-flake or egg in any form, nor ants' eggs or anything of the kind. They generally like white millet; also cuttle-bone, and a lump of rock-salt kept clean and moist. Also the Indian and spray millet and a little canary. I should not scald any of the seed. Keep the water-glass clean and regularly filled.

Incubation lasts about twelve days.

In a cage (but not in an aviary) the males sometimes give trouble when the young are a few days old, wanting to go to nest again prematurely. In the meantime, all you can do is to leave them alone and watch.

If the male should go wrong, you must be very canny, for sometimes the female will not feed the young if the male be removed. Individual birds (in a cage) differ as much as Canaries do; but with all your experience with birds generally you will be able to manage all right I suspect.

The only real difficulty with Gouldian-breeding in a cage comes when the female is allowed to go on lay, lay, lay, until she kills herself.

See Mr. Meade-Waldo's valuable experiences at p. 127 of Vol. VII. of our Magazine.

REGINALD PHILLIPPS.

THE SCARLET IBIS.

In reply to an enquiry, the following letter was forwarded to

Mrs. Gregory:

The Scarlet Ibis is not unduly sensitive to cold, but would not long survive in a damp wet situation whether indoors or out.

At the London Zoological Gardens, they are now (July 4) breeding in the great aviary. In the winter they are kept in the aviary opposite, which consists of a part glass shed with a large open flight in front, and as a rule they go in and out as they please; but they are shut up every night, and *also day and night while snow is on the ground.*

They are fed on chopped plaice, whiting, shrimps, &c., and must have access to a fairly large pan of frequently renewed water.

To sum up, the Scarlet Ibis can be kept with the same protection as that given to ordinary fowls, but the shed must be dry and free from draughts, and should be well lighted.

Probably cats would not attack them; the greater danger in a country district would be from foxes, stoats, and possibly rats.

WESLEY T. PAGE.

CORDON BLEUS NESTING.

SIR,—My Cordon Bleus have made a nest of fibre in a small pine tree in an out-door aviary. There is one egg—possibly more—in the nest, and the birds are sitting. I am afraid that I shall not be able to supply them with any insects but house flies and mealworms. Both old birds are very fond of these, but will they give them to the young birds? I have Abrahams' food and preserved egg, and could get dried ants' eggs and mealworms from London. The nest is the shape of a small soda water bottle and is not lined. I should be grateful for any instructions as to food.

(Mrs.) R. S. VIVIAN.

The following reply has been sent to Mrs. Vivian :

Dr. Russ says that Cordon Bleus should have fresh small ants' cocoons ; or, if these cannot be obtained, they must be accustomed to soaked ants' cocoons with egg-bread and soaked (scalded) seeds.

Years ago I repeatedly tried Waxbills and Grass-Finches with scalded ants' eggs, and they never touched them, simply ignored them.

I should, therefore, be inclined to mix dried ants' eggs with yolk of egg and biscuit, adding a few small mealworms and some blight from roses if you can get that easily (we have too much of it this year).

Whatever the old birds eat they must necessarily give to the young birds, because they feed them from the crop. Let them have plenty of chickweed and flowering grass, which are (I believe) as important as insect food for rearing the young.

A. G. BUTLER.

 PASSERINE PARRAKEETS NESTING.

SIR,—Can you tell me what is the proper food for Blue-winged Parraquets having young ones. The hen laid seven eggs and hatched six. She began to sit when she had laid three eggs and has hardly been off since. The first young one was hatched June 30th, and five more during that week. The cock sat on the first young ones while the hen had the eggs. The young ones don't thrive and four have died. The others look thin and miserable as if they were starved. They have canary, millet, oats, hemp, soaked bread, and soaked biscuits and egg food, and fresh flowering grass.

B. SHEPHERD.

The following reply was sent to Miss Shepherd :

It is very strange that the young ones should not thrive on the liberal diet that you have been supplying them with. You might try bread-and-milk, though it is doubtful whether this would be an improvement on the soaked bread.

Mr. Cresswell bred this species in a small cage in 1896, and one young bird was reared, chiefly on hemp seed. (See Vol. II., p. 144.)

I cannot imagine a diet on which the young would be more likely to

succeed than that which you are giving; and I think your want of success must be due to some other cause,

You do not say whether the birds are in a cage or an aviary.

D. SETH-SMITH.

THE BLUE THRUSH.

(*Monticola cyanus*).

SIR,—I have brought home from Italy some Blue Rock-Thrushes, which I hope to be able to breed next season if they live, as I have one good hen.

They appear in good health, but have all gone bald. I know they are subject to surfeit, and have been avoiding over-feeding, and have not given a mealworm.

I feed with egg, bread crumbs, ants' eggs, dried flies, an odd cockroach and a large snail, fruit, etc. I put a little Parrish's food in the water. I do not give them all that they would be willing to eat had they the opportunity, so am puzzled how they can be suffering from surfeit, which I understand is the cause of baldness. In Italy they feed them on ground Indian meal*, not even cooked, and a little cheese. I changed this food when I came home, as the meal I got in this country did not seem to agree with them.

I lost a Pied Rock-Thrush not long ago from swollen feet and eyes; but when I was away from home he ate all the other birds' food.

H. B. RATHBORNE.

The following reply was sent to Mr. Rathborne:

I am very glad to hear that you have succeeded in bringing some Blue Thrushes home.

I find a little difficulty in replying to your letter as you do not say if they are birds of the year or adult specimens, whether you keep them together or separately, and whether in cages or in an outdoor aviary.

Put a little fluid magnesia occasionally into the drinking water, give them plenty of clean water both for washing and drinking (they cannot get on in hot weather without their bath), give them as much fresh air and liberty as possible, feed very plainly, and see that they do not kill one another. Are you sure they are not pecking one another's heads?

The Pied Rock-Thrush will live for years if carefully fed, but will very quickly go wrong in the way you mention if given stimulating food; but, except for fighting, I have never had a Blue Thrush go wrong (I have had three), and have always regarded it as one of the easiest of birds to keep.

Referring to your food, I should stop the "dried flies" altogether.

* Chennai?

Take care also that the bread is *stale*, but not sour; a bird in confinement cannot digest new bread. The ants' eggs should be mixed with soft food before being given to the birds, so as to give them a chance of swelling; if swallowed perfectly dry, they swell inside the bird, disarranging strong species, and killing some of the more delicate ones. Moreover, you must take care that the ants' eggs be clean and good.

Parrish's food is unsuitable at present. Healthy birds are better without anything of that kind.

Give spiders, earwigs, cockroaches, woodlice, etc. (not mealworms as long as other small creatures can be obtained), and fruit. Try also an orange cut in halves, placed in a little earthenware (not metal) dish with the face up.

Of course they will require protection in cold weather; and look out for the moult.

Blue Thrushes have been and are nesting in Mr. St. Quintin's aviaries this summer.

REGINALD PHILLIPPS.

SOME NOTES ON THE LIOTHRIX.

SIR,—With regard to the sexes of this most charming of cage-birds, I may say that my experience in India, like Mr. Astley's in Italy, was that in a lot containing both sexes it is easy enough to pick out the males by the brighter colour, especially when the pairs are side by side. Here, however, what with the paucity of males, the variability of the species, and the disgusting state some dealers let their stock get into, it is not easy to be certain, so that I agree with Dr. Butler that the voice test is the best. Among a lot of about two dozen I had in Calcutta some time ago the few with completely red bills were undoubtedly males; but I have also seen undoubted males with black at the base of the bill, and this does not disappear with age. A poor, mostly out-of-conditioned lot which I picked up in London lately were nearly all clear red in the bill, but yet were mostly hens as far as I could see. As these were simply dying off, I let them go in the backyard of my lodgings, where there were a few trees, and, to my delight, they proved good homers. The sickliest birds did not leave at all, but four went off, *via* the trees, into the adjoining gardens, one, which was the worst flier, coming back that night. The rest returned in a day or two. Some more of the sickly ones died, and I sold some of the better specimens, leaving one sore-eyed bird, which seems to have gone off when he found himself alone. One bird came to grief by getting lost behind some object in an outhouse where it was not found till too late, but all the others came back regularly for days. As only one bird was able to fly properly—most having broken flights—it says volumes for the intelligence of the birds that they escaped cats. Sparrows did not seem to give them any trouble, and I have seen the two species close together. As

we know Liothrix is very omnivorous, and can winter outside without heat, I hope that this experience will encourage some one to try these charming birds in the open—anyone living near a London park would be well situated for this. But he should get strong fliers and separate the sexes, letting out the cocks one day and hens another. A bird which, even without proper power of flight, can run the gauntlet of cats and Sparrows, given vegetation of a very limited kind, has possibilities which might be made more of by people who would like to try aviculture in the open.

FRANK FINN.

PROLIFIC REDRUMPS.

SIR,—My Redrumps hatched and reared five young ones last autumn, all of which proved to be hens.

In April they again went to nest, and again hatched a brood of five consisting, this time, of three cocks and two hens.

Before the young had left the nest a week the cock began to ill-treat them and I was forced to cage him. The good little hen continued, single-handed, to feed the five. At the end of another week they were able to shell seed, so I removed them to a small aviary, where they have flourished exceedingly.

The old hen soon went to nest again, laying four eggs in her log nest and dropping one soft one on the ground.

Last Sunday, seeing the hen outside, I felt in the log and found there only a few small pieces of broken egg-shell. Could mice have destroyed the eggs? A perch had fallen in such a way that they might have obtained access to the log. The cock was then busy feeding the hen, and they evidently mean to try again to raise a family.

I only hope that such a succession of nests will not prove too much for the hen.

B. C. THOMASSET.

FLINT- AND SHELL-GRIT FOR BIRDS.

The value of good clean grit for birds in captivity is well known to aviculturists, but it is often difficult to obtain this in its most suitable form.

Mr. Arthur Gill has brought to our notice some specially crushed grit which he has proved to be admirably suited to the requirements of birds in captivity; and from a careful examination of it we are convinced that it will prove to be invaluable to aviculturists. It is manufactured by Mr. Herbert Clarke of Bank Buildings, Erith, Kent, and is known as "Herbert Grit." It is sold in several degrees of fineness. Extra fine grit at 1/- for 7lbs., 2/6 for 28lbs. or 8/- per cwt. A slightly coarser quality, suitable for all but the smallest birds, is priced at 2/- for 28lbs. or 6/- per cwt.

The shell-grit, which is crushed into minute cubes without any sharp edges, is extremely useful in supplying lime in a most convenient form readily taken by the birds. We understand that this grit has been manufactured in the coarser quality for pigeons for some time, but it is only recently that Mr. Gill has been able to persuade the manufacturer to crush it fine enough for the use of aviculturists; and we can heartily recommend it to their notice.

ORNAMENTAL GRASS FOR BIRDS: JAVAN MAJA-FINCHES.

SIR,—Towards the end of May a friend gave me some ornamental grass, which I offered to my Gouldian Finches. They ate it with such avidity, so very much more eagerly than they do roadside grass or chickweed, that I immediately jumped to the conclusion that the grass must be *setaria glauca*. Mr. Wiener, however, told me this is not so: and he very kindly found out the name for me—*Briza media*. He said I ought to let you know how fond the Gouldians and Parrot Finch are of this grass. I have since discovered that the birds are all equally fond of green oats (in the ear), and now that I cannot get any more *Briza media*, I am giving them oats instead.

I have lately added two Javan Maja-finches (*Munia ferruginosa*) to my family. I don't know if they are a pair, they are very much alike, but one makes a ceaseless little call, like a chicken who has lost its mother, and the other makes a noise like a wheelbarrow complaining that its wheel wants oiling. The band of brown between the black throat patch and the black that extends to the tail is broader in one than in the other, but I cannot see any other difference. The dealer from whom I purchased them had only four, and the other two died; they were both males. Mine seem perfectly well, but I have only had them a week yet. They will eat nothing but spray millet.

.D. HAMILTON.

BREEDING THE MANY-COLOURED PARRAKEET.

In writing of Mr. Fasey's success with his Many-coloured Parrakeets in the last number of this journal, I mentioned that a pair were also nesting in my own aviary; and it may perhaps interest members if I give a few particulars now that the young are reared.

The hen commenced to sit on three eggs (a broken egg had also been discovered outside the nest) on April 30th, and the third egg hatched on May 22nd. The first young bird left the nest on June 20th, flying almost as strongly as its parents. The following day a second appeared, also a strong flier; but the third did not make its appearance *for a week after the second*. Unfortunately all three are hens. My Many-colours took a long time to decide upon a nest-box, eventually choosing an upright box with a layer of dry earth and rotten powdered bark at the bottom. When once

they had settled on a box the nesting went forward without a hitch, and the young were reared with no more trouble than young Redrumps. Soft food was supplied for other birds in the aviary, but was apparently never touched by the Many-colours which, however, ate a great deal of green food, and were always asking for more.

As I write, the young birds have been flying for nearly a month, but they are still fed occasionally by their parents, although they have been able to look after themselves perfectly well for some time.

D. SETH-SMITH.

THE SOCIETY'S MEDAL.

Mr. D. Seth-Smith has succeeded in breeding the Greater Button-Quail, *Turnix tanki*, and an article on this subject is now published.

The Society proposes to award him a Medal for having bred this species, it is believed for the first time in the United Kingdom. If any previous instance should be known to any of our members or readers, it is requested that they will be so good as to communicate at once with the Honorary Business Secretary.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case. Domestic poultry, pigeons, and Canaries cannot be dealt with. No replies can be sent by post.

(A) VIRGINIAN NIGHTINGALE, (B) WEAVER. (Lady Carnegie). A Was very wild when turned out, and struck himself very often; found dead next morning. B Would not fly, but hid in corners; found him on the second day caught in a bush head downward. [A Died of concussion of the brain. B Was badly bruised on back of wing and breast, which prevented flying; death was caused by shock from injuries received possibly when hung up in bush].

Cock and hen VIRGINIAN NIGHTINGALES. (Mr. Moerschell). Both found dead. [Apoplexy in both cases; your feeding seems correct, unless they eat the bulk of the hemp—in future I would not give hemp].

Cock DIAMOND DOVE. (Miss Chawner). Looked puffy yesterday, found dead to-day. [Acute inflammation of liver, caused probably by chill].

GRASSFINCH. (Captain Tweedie). Yesterday looked puffy and sat screwed sideways on the perch and seemed to have a difficulty in swallowing. [Bird died of enteritis; the difficulty you refer to is often present with many diseases of birds].

(A) MANNIKIN, (B) GREY PARROT, (C) WHYDAH. (Mrs. Mortimer). A—Its eyes were closed on arrival. B—In my possession ten days, had more or less diarrhœa all the time, fed on seed and dry biscuit. C—Whydah died this morning, apparently well until then. [A Died from pressure on the anterior part of the brain, caused by extravasated blood due to direct injury. B Died of inflammation of liver and bowels. You do not give details of feeding, so cannot help you as to this. C Whydah was a cock that had only partly assumed the breeding plumage; there was a dent on back and top part of skull which caused pressure on the brain and death—injury possibly caused by other bird].

GREY WAXBILL. (Mr. P. Yewdall). Died this morning, and two others died last week in an apparently similar manner; they were mopey day before death. [Bird died of enteritis, possibly too much or wet green food caused it; its bowels were very relaxed].

BIRD. (Mr. Tomes). [Too much decomposed for a satisfactory examination to be made].

Cock BUDGERIGAR. (Mr. Brelsford). Apparently in good health in the morning, found dead at noon. [Apoplexy was cause of death].

BLACK-HEADED GOULDIAN FINCH. (Miss Barns). Had just finished moulting and had looked puffy, but yesterday appeared to be eating as usual. [Bird died of heart failure, consequent on debility and mal-assimilation, doubtless caused by the tax on the system of the moult: in future a few drops of Parrish's food in the drinking water daily will help the birds very much].

Hen GOULDIAN FINCH. (Mrs. Howard Williams). Found dead: she left the nest in February with another, and has been apparently well up to the time of death. [Acute enteritis: and I think probably the chickweed will account for it; it is better to have it slightly wetted than too fresh].

(A) WAXBILL, (B) GREEN AVADAVAT. (Lady Carnegie). [A Died of acute enteritis. B Died of jaundice].

FORSTEN'S LORIKEET. (Mrs. Michell). Been in aviary about four weeks, apparently well until yesterday, when it seemed to choke in swallowing and drank thirstily. [Inflammation of bowels was cause of death].

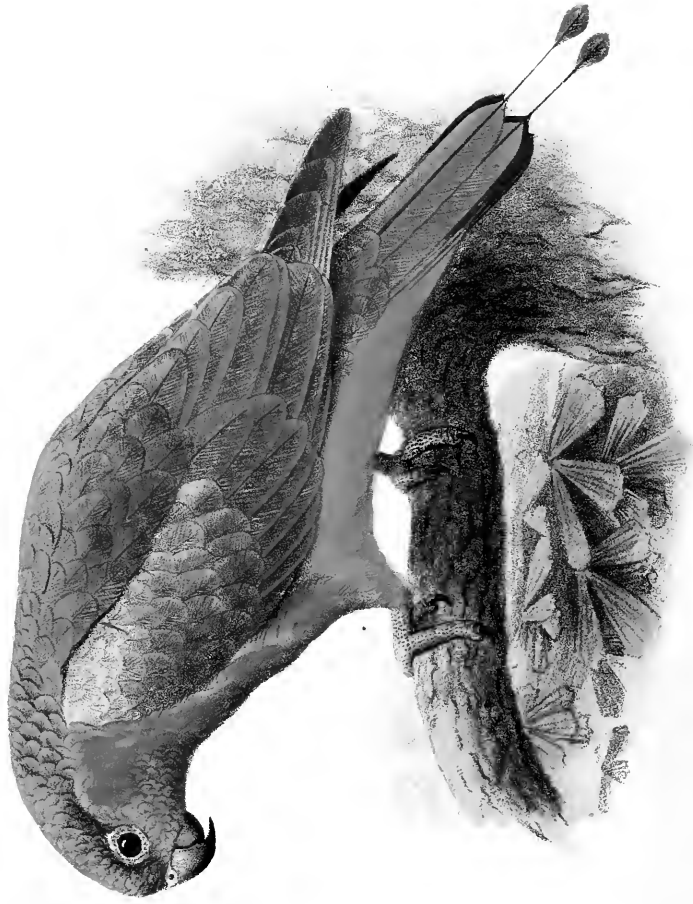
GOLDFINCH. (Mr. Rycroft). Found dead; had not seemed well for some five or six weeks. [Liver disease of long standing caused death].

WAXBILL. (Miss West). It escaped in the morning and flew on to the window-pane, but did not seem to hurt itself. [Died of concussion of brain caused by injury].

Hen BUDGERIGAR. (Lady Louisa Feilding). Found dead; apparently well when last seen. [Egg binding was cause of death].

ROSELLA. (Mrs. Charrington). Found dead; ten minutes previously seemed quite well. [Inflammation of bowels with fits caused by reflex nerve irritation].

ARTHUR GILL.



H. Goodchild, del et lith.

From a living specimen in the
Zoological Society's Gardens

RACKET-TAILED PARROT

Prioniturus platurus

Bate & Danielsson Lith. imp.

Avicultural Magazine,

BEING THE JOURNAL OF THE
AVICULTURAL SOCIETY.

New Series.—VOL. I.—NO. 11.—*All rights reserved.*

SEPTEMBER, 1903.

THE RACKET-TAILED PARROT.

Prioniturus platurus (Vieill.).

In his "Hand-list" of Birds, Dr. Sharpe enumerates ten species of Racket-tailed Parrots, but the subject of the coloured plate which accompanies this, is the only one, so far as I am aware, that has been brought alive to Europe, although I am informed that a member of this Society is privately importing some Racket-tails from the Philippines, which may prove to be either *P. discursus* or *P. luconensis*.*

When, in the summer of last year, a specimen of the Racket-tailed Parrot arrived at the Zoological Gardens, the Executive Committee of this Society decided that a drawing should be made, and a coloured plate presented, in due course, to the members.

At page 262 of the last volume of this journal, Mr. E. W. Harper, who brought the first example of *P. platurus* to this country, gave a very interesting account of the bird, to which our members are referred. He fed it as he would have fed an African Grey Parrot, namely, "on canary seed, hemp, dari, rice in husk, and millet. It was particularly fond of canary seed. A bit of dry biscuit, toast, or crust of bread was always relished; as were also fruit, such as banana or orange, and a little lettuce now and then."

On arrival at the Zoological Gardens this bird was in good condition, though the spatules of the tail had been broken off. It would have been extremely interesting to have watched the

* I am informed that all died on the voyage.—D. S.-S.

growth of these characteristic adornments had the bird lived to complete a natural moult; but unfortunately it very soon sickened and died, probably from a want of knowledge on the part of those in charge of it, of its proper treatment. It is greatly to be hoped that others may be brought to this country, and possibly, when better understood, they may prove to be less delicate than they appear at present to be.

Although the specimen above referred to was, in all probability, the first living example ever seen in the British Islands, it was not, as at first supposed, the first of its kind to arrive in Europe, for Herr Blaauw kept one as long ago as 1888 in Holland, a short account of which he published in our Magazine last year (p. 277). It was an adult, with the spatulated feathers, perfectly developed, but it was not in robust health, and lived but a short time. "This Parrot," writes Herr Blaauw, "fed on seeds, with the addition of stale bread soaked in milk, with some sugar over it; a food which I have often found very beneficial to Parrots when in rather a poor condition."

Dr. A. B. Meyer gives the following interesting account of this Parrot in its native island—Celebes :

"This bird flies much during the night, and can often be heard crying on the wing over one's head. It feeds in the night on the fruits of gardens and fields, and is fond of Indian corn, rice, and fruits, like lansa, pakowa, etc. During the day-time it is seldom to be met in the plantations, but is to be seen flying very high and crying loud, seldom alone. It makes its nest in hollow trees. On trees it does not move much, but sits quietly. If one is shot down from a group, the others do not stir, but lie, concealed by their green plumage, between the leaves, just as I have noticed in the case of other Parrots.

"The natives of the Minahassa assert that if the 'kulli-kulli' is taken by surprise in the rice-fields, it becomes confused or terrified, falls down, and then can easily be caught. This does not appear very credible; nevertheless it agrees with the observation that one can be brought down by a shot out of a group without the others moving; perhaps these are struck by terror, and do not know what to do. This fact has given rise to



HONEY-EATERS FEEDING FROM THE HAND.

Photos by D. Le Souc'h.

Bald, Sons and Harrison, Ltd.

the following tale in the Minahassa. Children are asked, 'If ten birds sit on a tree, and one is shot down, how many remain on the tree?' The children answer, 'nine'; but the master says, 'wrong,' because they all fly away—except when the birds are kulli-kulli; in this case the children are right.

"The cry of *P. platuris* is like *kāk, kāk*.

"At Menado, I once had a specimen in captivity, but it appeared to be very unhappy in its cage." (*Ibis* 1879, p. 49.)

D. S.-S.

HONEY-EATERS.

By A. J. CAMPBELL, Melbourne.

(Author of "*Nests and Eggs of Australian Birds*.")

The Meliphagous or Honey-eating birds of Australia are an exceedingly numerous and varied family—there are no less than between seventy and eighty species. Besides being naturally graceful in form, the majority are very beautiful and amongst the liveliest and most songful of the feathered denizens of the bush. Seemingly they lead quite a romantic existence flitting from flower to flower, feasting on insects and wild honey all the days of their life. They feed principally on the nectar of the abundant flowers of the ubiquitous *Eucalypt* trees one or other species of which blooms all the year round. Should this giant form of vegetation (heights ranging up to 300 feet) be scarce, then cheerful Honey-eaters fall back on the cylindrical flowers (called "honey-suckles") of the *Banksia* trees, the star-shaped flowers of the *Leptospermum*, the bottle-brush-shaped blooms of the yellowish *Melaleuca* or flaming *Callistemons*, etc., etc., scrubs, not to mention honey laden bells of the heath-like *Epacris* and other shrubs. Indeed, some of the pretty birds when the land, in a good season, is literally flowing with honey, have surfeited themselves so much that they have been picked up incapacitated under some favourite flowering tree (but please tell it not aloud) in a state of *drunkenness* and that too in *the day time*.

Notwithstanding this human-like weakness it would seem a pity to confine even in a spacious aviary such feathered

fairies, but I have lately learnt that they take very kindly to captivity, and I feel assured that were any of the tribe introduced (if they have not been already) into the British Isles, they would be amongst the most charming and attractive of the smaller birds of the world.

My friends, Dr. and Mrs. G. Horne, and their niece Miss Bowie of this city, possess an aviary containing twelve species of Honey-eaters, which I propose to enumerate, giving by the way such field notes or bush reminiscences as I possess that may possibly be of interest. Recently I visited the aviary (a well-sheltered structure containing living shrubs, etc.). No sooner had I entered than two or three active little White-naped or Lunulated Honey-eaters (*Melithreptus lunulatus*) attracted by the flowering branchlet of iron-bark *Eucalyptus* which I held in my hand, flew on to it, clinging in pretty poses while ravishing each bloom for honey. They are fine little fellows, about five inches in length, wearing a greenish-olive coat and white under-surface, head black, relieved with a white crescent-shaped mark on the nape—hence the vernacular name—their dark brown eyes are relieved by naked stripes of red over the upper lids. They possess a plaintive half-whistling, half-sibilant note—a familiar sound in heavy forest country. I recollect there was something akin to an irruption of these birds in the vicinity of Melbourne and suburbs about the season 1866, when I particularly remember the so-called Cape Wattles (a variety of *Acacia*) being crowded with the birds feeding amongst the flowers.

But getting back to Dr. Horne's aviary, and while still admiring these "honey-nourished" (literal meaning of *Melithreptus*) birds something tickled my beard which caused me to look downward, and lo, a Spinebill (*Acanthorhynchus tenuirostris*) was prospecting the flowers (also a *Eucalypt*) that were in the button-hole of my coat. How deftly the dear little creature probed each disc with its long slender bill (about an inch in length) while glancing at me with its beautiful ruby-red eyes! Its plumage though not gay is rich, the head and upper surface being dark, under surface chestnut, excepting the throat, cheeks, and chest, white, the first with a patch of brown in the centre, deepening into black on its lower edges. Total length about 5½

inches. During flight it makes a sharp "purrt, purtt, purrt" sound with its wings. Its call is an exceedingly high-pitched note, oft repeated and quickly. The Spinebill is a fairly common bird both in town and country. I have watched Spinebills in my own garden, gathering pollen from the Chinese-lantern blooms (*Abutilon*). They did so on the wing, fluttering Humming-bird-like while probing the bell-shaped flowers. When exploring with companions an enchanting gully (or water course) in the country we discovered in the space of about half-a-mile, three Spinebills' nests—one being prettily ensconced in a bunch of flowering *Clematis* at the top of a *Melaleuca*. The nest was open, deep and warmly feathered.

Both the Spinebills and the White-naped Honey-eaters were perfectly fearless of my presence in the aviary. Next to approach me was the fine White-eared Honey-eater (*Ptilotis leucotis*). At first it perched on my hard hat before it summoned up courage to join in the feast of flowers which I still held in my hand. It is a fine, snowy, Honey-eater, about $7\frac{1}{2}$ inches in length, its black throat and otherwise æsthetic green plumage being conspicuously set off by its white ear coverts. The White-eared Honey-eater is somewhat wild in the open and its nest usually built in ground scrub is hard to find. The cup-shaped home is lined with a thick ply of fur or hair. It is an interesting sight to watch the busy birds plucking hair off the backs of cattle, for nest lining. Once a friend of mine enjoyed a comical experience. While hunting in a scrub for nests a bird actually perched on the horse he was riding and plucked hairs therefrom. This hair-plucking instinct is strong in the aviary bird, for when Miss Bowie enters the bird sometimes alights upon her bare head and pulls at her tresses.

I commenced to survey the aviary for some of the White-cheeked cousins and detected five other species of *Ptilotes*. First and foremost were three splendid Yellow-tufted Honey-eaters (*P. auricomis*). But they were not so confiding as the previously mentioned birds. However a transparent tube filled with live house flies which Miss Bowie held in her hand was too tempting, and one Yellow-tufted beauty came down and sampled the dusky tit-bits. As a typical and beautiful Australian Honey-eater I

have suggested it as a subject of an illustration, together with a flowering spray of the Iron-barked *Eucalypt* upon which it loves to feed when in the open. As will be noticed the Yellow-tufted Honey-eater wears a beautiful, rich, golden-tinted plumage, especially the under surface, with a lengthened tuft of extremely rich yellow feathers extending backwards from the ear. Its total length is about seven inches. I once enjoyed a glorious sight—about 100 of these birds under a shining sun flying across a flat evidently in search of “fresh fields and pastures new.” Like other Honey-eaters the gay Yellow-tufted is gregarious at times. This bird constructs a stringy-bark nest in the pendulous branches of a *Eucalypt* or *Acacia*, laying in common with the other members of its tribe, two or three rich salmon-pink eggs more or less spotted with reddish-and purplish-brown—some, the loveliest items in creation.

I fear I have not space enough to more than mention the remaining *Ptilotes*—the White-plumed (*P. penicillata*), the graceful Yellow-plumed (*P. ornata*), the Fuscous (*P. fusca*), and the sprightly Yellow-faced (*P. chrysops*). They are all about the same size—6½ inches in length—and dressed in art greens with the distinguishing features as suggested by their respective vernacular names. The White-plumed Honey-eater is the most familiar about our city parks and gardens, while the Yellow-faced cousin has perhaps the merriest song and is fond of timber-margined streams. An oological reminiscence of the latter bird—a lovely green, moss-made nest, containing red mottled eggs, suspended in an acacia bush abloom with yellow, overhanging a moss-covered bank in a sheltered forest nook.

The two species of shy and distrustful birds of the aviary, belonged to the genus *Meliornis* (from two Greek words meaning honey-bird). First the White-bearded Honey-eater (*M. novæ-hollandiæ*), whose showy figure may be thus described: Head black, conspicuously marked by a stripe over each eye, moustache and small tuft of feathers behind the ear, white; rest of the upper surface dark, save a patch on the wing and the margin of the tail, which are yellow, while the under surface in general is white striped longitudinally with black; eyes pearly-white; bill and feet black; length, seven inches.

The White-bearded Honey-eaters kept on the far side of the aviary amongst the bushes, but in the open they are somewhat bold and cheeky. They are a common bird in the coastal



YELLOW-TUFTED HONEY-EATER.

Ptilotis auricomis.

scrubs where the *Banksias* grow, but I have also observed them far in the interior in the mallee scrub (a dwarf *Eucalyptus*).

They build a nest in a cosy bush, lining it with the brown, velvety particles of *Banksia* cones, sometimes with soft seed-cases of other vegetation. The other wild *Melinoris* was the Crescent Honey-eater (*M. australasiana*). No wonder this splendid little fellow appeared timid, because its natural home is the depths of the forest, especially where the thick undergrowth flourishes in moist or swampy situations. The bird is not so gay in appearance as its White-bearded cousin, and takes its vernacular name (Crescent) from the black lunar-shaped mark down each side of the breast of the male. A prettily situated nest I once found was placed a foot or two from the ground in a bunch of graceful coral fern (*Cleichenia*). The nest was beautifully lined with the reddish flowering stalks of moss, upon which three richly coloured eggs rested.

The biggest Honey-eater in the aviary was a solitary Warty-faced Honey-eater (*Meliphaga phrygia*). It was happy upon



From MIVART'S *Elements of Ornithology*.

WARTY-FACED HONEY-EATER.

Meliphaga phrygia.

a rafter, pouring forth its plaintive song, but seemed a bit pale coloured, for in the bush nothing can exceed the splendour of its



HONEY-EATERS NEST IN SEEDLING CLEMATIS.

black and golden garb, the head, throat and chest being black, while the rest of the plumage in general is beautifully mottled with black and pure yellow. There is a patch of small wart-like excrescences on either side of the face, hence the distinguishing name, Warty-faced. This handsome Honey-eater is about the size of a Thrush, or about $8\frac{1}{2}$ inches in length. Imagine a flock of about fifty of these beauties darting from tree to tree through the bush. I have been spell-bound by such a sight, and what a picture, too, their beautifully constructed, cup-shaped, bark-made nests make, when resting on a horizontal limb, not to mention the "pigeon" pair of lovely salmon-coloured eggs!

Now I have come to the last as well as the least of the captive and captivating Honey-eaters—a little Sanguineous or Blood-Bird. There was only one specimen—a female (some gorgeous males having succumbed)—her plumage as usual being uniform light brown and her length about five inches, including a long (one inch) Humming-Bird-like bill, so admirably adapted for prospecting tempting flowers. The males have their heads, necks and backs of shining scarlet, hence the name Blood-Bird. In the tropics I have enjoyed watching scores of these little beauties in their brilliant livery, disporting themselves and feeding, on dewy mornings, among the *Melaleuca* blossoms.

To conclude, I suppose I have come to the crux of my article from an aviculturist's point of view. How are all these delightful birds kept in captivity? Miss Bowie informs me the food is very simple—garden honey diluted with water (*i.e.*, honey two parts to one part water—pure honey makes the birds too fat); a little Lark-food, or instead, bread and water sugared; plenty of green stuff—lettuce, etc.,—and any seasonable fruit. Of course, not forgetting a few flies or such-like insects.

[The hearty thanks of the members of the Avicultural Society are due to Mr. Campbell for his most interesting article.—ED.]

THE INFLUENCE OF DIET ON THE AVIAN
DEATH-RATE.

By W. GEO. CRESWELL, M.D., L.R.C.P., F.Z.S.

On the most casual consultation of the pages of any book or paper devoted to aviculture it is manifest that a great importance is attached to the question of what dietary is suitable or unsuitable to the health of any species of bird which is for the moment under consideration by the particular writer. This importance is not misjudged: there can be no question—all my readers will agree with me—that the mortality of birds is enormously increased coincidently with their impressment into what we may call the service of man. As an aviculturist of more than forty years' standing this fact has been painfully borne in upon my recognition times and times again without number; and it is hardly to be supposed that the mind of a medical man, who has in addition been a student and lover of nature since his earliest years, has not as a first consequence been persistently exercised in the attempt to solve the apparently insoluble problem as to the causes of this mortality. I say apparently insoluble advisedly, because, although in spite of all the opinions and even dogmas that have been constantly laid down by one after another of our most earnest and enthusiastic workers, the mortality still continues the same, or at any rate has not diminished in even a proportionate ratio to the admittedly improved conditions under which our charges are now housed and lodged; yet I am confident that in the near future we shall see much improvement.

This mortality has been evidently accounted for in the minds of most aviculturists by some occult influence exercised by this or that article of diet. First we see one thing condemned, then another. Colour-food, inga seed, rape seed, mealworms, some particular kind of green stuff, then any kind of green stuff if it is wet, bread, pea meal, and in short everything, except canary seed and egg yolk, is in turn condemned as being the prime factor in this lamentably heavy death-rate. Then on the other hand all these proscribed articles of diet have their respective champions, who are ready to fight to the death in defence of their favourite selection. And neither of the parties

to the controversy has any better reason to allege for its opinions than the somewhat vague one that they have observed a heavy death rate, or on the contrary have not experienced any increase in mortality, after the use of the food for the time being in dispute. They often go on to say, with the object of strengthening their position, that the experience of a lifetime bears them out in whichever opinion they hold.

But it is obvious that of two men, imbued with diametrically opposite beliefs on one and the same narrow subject, both cannot be right: they are more likely to be both wrong. When you find one section of aviculturists never giving *x* and another section always giving it to their respective birds, and when you find the death rate in neither section shewing any appreciable improvement, does it not point irrefragibly to the conclusion that they are both of them needlessly quarrelling over something that is really outside the scope of their practical politics, and that they should rather seek for some cause of the high mortality which is common to both parties and which has hitherto never been suspected by either of them? When we see enteritis (inflammation of the mucous lining of the bowels) accounted for by half-a-dozen different men, all equally honest and all equally desirous of helping their fellows, on the score of half-a-dozen different so-called errors in feeding, each of which in the eyes of the other five appears to be harmless, (though the enteritis still continues), what does this confusion point to in the eyes of the rational onlooker? Exactly what I have said before—that while it is evident that all of them cannot be right it is quite possible, and indeed more than probable, that all of them are wrong. Again, if all of them cannot be right, and one of them is, which of them is it? And he that is right should be able to definitely prove the stability of the position he takes up. As the matter stands each has only the one and the same argument, namely, that of experience, in other words “*post hoc*,” and this he wishes to convert into “*propter hoc*.” Therefore, as far as such argument as he has at command goes, each one is equally right, which is an absurdity, as Euclid puts it in his terse and felicitous terms.

Happily, however, the microscope has ended the confusion. It has shewn explicitly and indisputably that errors in

diet as the causes of death are but few, but that although few they are all-powerful; that having once set up the condition of disease leading to death, they have put the sufferer practically beyond the help of drugs: and that the only hope for the amelioration of the existing difficulties in the way of what is called acclimatization of foreign birds, and of keeping canaries, etc., in health, consists in, first, a thorough reorganization of the existing methods of importation and housing, and, secondly, the total abolition of egg as an article of food. This, and this alone, is the offending diet which has done so much harm; which has hitherto been unsuspected by our aviculturists; and which has been in all our own houses the while we have been seeking to find the iniquitous something which we fondly supposed to exist in only our neighbour's.*

I am quite well aware that, in penning the above statement, I am administering a shock of considerable intensity to my readers; that it will take them a considerable time to get over it; and that in the eyes of a few of them it would be well that I adopted the Shakespearian advice and "write me down an ass." The defence of my thesis is however too long to inflict on my fellow members in this article, but those of them that are also members of the Foreign Bird Club will find it set out elsewhere, as I hope both fully and convincingly. Septicæmia in its various types never will—never can—be absolutely eradicated from the position of being a part of the environment of *captive* wild birds, whatever may be the ultimate position with regard to it of the purely *domesticated* species: but by a more thorough and intelligent adaptation of hygienic laws than exists at present, and by a rigorous discontinuance of that article of food which of all substances is the most prolific of the most virulent form of its causative bacilli, it can be greatly modified both as to its amount and its capacity for harm. † ‡

* And yet birds which never eat egg are as subject to disease as those which do. When I first took up aviculture, and for several years afterwards, I only used egg for Canaries; but the death-rate among my other birds was far higher than it has been since I have given egg. The experience of aviculturists throughout the civilized world for the past century, is surely of more *practical* value than even microscopic investigation. The discovery of the potential germs of disease in a food, does not postulate the existence of a receptive soil to ensure their development.—A. G. B.

† Does Dr. Creswell include Preserved or Dried yolk of eggs? The danger of ordinary hard-boiled egg has been recognised by many for a very long time.—R. P.

‡ Dr. Creswell has opened a subject far too great and important to be accepted or rejected on the bare words "total abolition of egg," and it is to be hoped that the author will give us much more information on the subject.—J. L. B.

WAXWING NESTING IN A BRITISH AVIARY.

(Ampelis garrulus).

In many of our readers, I fear the above simple statement will fail to arouse either surprise or interest. To some, the difference between a Waxwing and a Waxbill is not very apparent; to others, the Waxwing is a common bird easily obtainable for a small sum, and not always a thing of delight when obtained. But to a goodly few the announcement that Waxwings are nesting in our Honorary Treasurer's aviary, have laid eggs and are now sitting, will be received with warm intelligence if not with enthusiasm.

Those of the present generation who know things as they are, but not as they were, will find it difficult to fully understand the feelings of naturalists half a century ago on the subject of this well known species. Perhaps I cannot present the case to our readers in a better way than by simply quoting from an old book entitled "Maunder's Treasury of Natural History." Under the heading of "The Bohemian Waxwing" we find the following:—

"'Whence,' exclaims C. Bonaparte, 'does the Bohemian Waxwing come at the long and irregular periods of its migrations? Whither does it retire to pass its existence and give birth to its progeny? These are circumstances involved in darkness, and which it has not been given to any naturalist to ascertain. It has been stated, and with much appearance of probability, that these birds retire during summer within the arctic circle: but the fact is otherwise, naturalists who have explored these regions asserting that they are rarer and more accidental there than in temperate climates. It seems probable that their chief place of abode is in the oriental parts of the old continent, and, if we may hazard an opinion, we should not be surprised if the extensive and elevated table land of Central Asia was found to be their principal rendezvous, whence, like the Tartars in former times, they make their irregular excursions.'

"It seems that in Northern Russia, and the extreme north of Norway, they are seen in great numbers every winter; and,

notwithstanding they at times invade peculiar districts in vast numbers, so remarkable was their appearance in former times considered, that they have alarmed whole regions, and been looked upon as the precursors of war, pestilence and other public calamities."

And even in the Rev. J. G. Wood's "Birds" we find the following:—

"Although the migratory habits of this bird are well known, and many of the localities which it frequents have been recorded by various writers, no one seems to have any certain information as to its true home, or the country wherein it breeds, although it is so numerous a species in its own locality that its hiding places could hardly have escaped notice had they occurred within the ordinary limits of scientific observation."

And Morris boldly tells us:—"These birds are believed to breed within the limits of the Arctic circle—in holes among rocks, or in deep forests." Moreover, having the courage of his convictions, he gives us a figure of the egg in anticipation of its discovery—but he would have been wiser in his generation if he had left that alone.

An illustrated account of the finding of the first Waxwing's nest, in Lapland, in 1856, was given by Professor Newton in *The Ibis* for 1861 (pp. 92-106, pl. IV.). I do not possess this volume, but in Cassell's Natural History (Vol. IV. page 86) parts of the account are supplied, and may well (in part) be repeated here.

The Editor commences with,—“It is difficult, at a distance of many years, to imagine the excitement which existed in former days amongst zoologists concerning the nest of the Waxwing; and the first authentic record that was published of the breeding of this bird was an account of the researches of the late Mr. John Wolley, to whose indefatigable zeal the world is indebted for positive information of the nidification of a great number of the rarer European birds.” Professor Newton tells the story of Mr. Wolley's success in *The Ibis*, which, as quoted, runs as follows:—

“It is unnecessary to repeat here the fabulous accounts

given by former writers respecting the nidification of this bird. The very plain statement communicated by Mr. Wolley to the Zoological Society on the evening of the 24th of March, 1857, is sufficient to set them at rest for ever. But still I may remark that from the days of Linnæus (who said of it, '*Nidus in rupium antris*') downwards, nearly all the conjectures published seem to have been wide of the mark. In years gone by, one of the hardiest of our Arctic explorers, Sir John Richardson, had failed to ascertain anything connected with its breeding in the far countries of the north-west; and, more recently, the intrepid Siberian traveller, Dr. A. Von Middendorf, was unsuccessful in the north-east. Yet it may be safely said that there was no bird whose egg was so longed for by the ornithologists of the whole world. Various were the plans they bethought them of for attaining this *desideratissimum*. Many tried to keep pairs of living birds, in the hope of inducing them to breed in confinement. One enthusiastic egg-collector, Baron R. Von König-Warthausen, we are told, even went to the trouble of caging a whole flock. It is true that here and there an oologist might be found with whom the 'wish was father to the thought,' and who accordingly deluded himself into the belief that in some unusually large specimen of the egg of the allied species (*Ampelis cedrorum*), or in some queerly-coloured monstrosity of a bird, perhaps not at all connected, he recognised a genuine production of *Ampelis garrulus*; but such instances were certainly exceptional, and there can be little doubt that prior to 1856 no one with any pretension to the title of naturalist had ever set eyes on a real egg or nest of the Waxwing, and that this privilege was reserved for one who of all men eminently merited it. It is due, however, to Scandinavian naturalists to say that several of them who had travelled in Lapland had expressed themselves confident that the bird did sometimes breed in that country; and though the reports of its nesting which some of them brought home have been shown by Mr. Wolley's discovery to be probably incorrect, yet it was, I think, reliance on the general fidelity of those gentlemen in matters of this kind which kept alive my friend's hopes of one day finding the long-sought treasure: but hopes they were of a kind so remote, that when they were ful-

filled he was justified in speaking of the discovery as ‘unexpected.’

“The first intimation I received from Mr. Wolley that the discovery was accomplished was contained in a letter written by him on his way up the Baltic, and dated 2nd September, 1856. He says:—‘Let me tell you now, whilst I think of it, that I have some reason for believing that the Waxwing makes its nest in good-sized fir-trees in the month of June. I give you this hint in case I should not live to give you more certain information; but you remember that I am not to return home without a Waxwing’s nest in my hand.’ He had, in fact, a few days before, when at Stockholm, received from his faithful Ludwig a letter telling him of his discovery, in which Ludwig had himself assisted, and respecting the truth of which he said, his ‘master must be quite sure—without doubt.’ Mr. Wolley, however, forbore to allow his own or my expectations to be raised too highly, and in spite of his receiving confirmatory evidence on his arrival at Haparanda and on his way up the river, it was not until he had reached Muoniovara, and had satisfied himself by repeated investigation of the whole story, that he trusted himself to write to me positively. His letter, dated ‘Muoniovara, 14th September, 1856,’ after describing his own doings and those of the friends I had made the preceding year, telling me of the expected scarcity of food, and giving the general results of the nesting season, goes on to say:—

“‘I have still to tell you of Ludwig’s expedition with Piko Heiki to Sardio, on the Kittila River. It was early in June, and he had to wade over Pallas-tunturi up to his middle in snow. Arrived at Sardio, he found them all at home, deep in dirt and laziness. He soon extracted from them the information that a pair of birds had been about, which they took to be *Tuka rastas*; and Ludwig himself had seen such a bird, and this bird’s egg was entered in my list. . . . Ludwig immediately started off into the forest, and sure enough he saw a bird which he thought was *Sidensvans*; but he was not quite sure, for the end of its tail looked white in the sun instead of yellow, as in your picture, but the next day, or in the evening, it was cloudy, and Ludwig saw the yellow; and now he had no longer any doubt.

He said he would give all the lads day-money, and they must all search, even if it were for a week, till they found the nest. They sought all that night and the next day till about mid-day, when a lad called out that he had found the nest; and there it was, with two eggs, about nine feet high on the branch of a spruce. . . . After five days Ludwig snared the old bird—a beautiful cock! and you may fancy with what pleasure I took it in my hand and saw that there were no doubts remaining. Indeed, I had before been pretty confident about it: Ludwig had written that I might be quite satisfied that it was the right bird. Martin Pekka had the picture with him at Sodankyla, and as soon as he came back Ludwig compared the bird with it, and certainty was doubly sure. . . . You can fancy how eagerly I waited for Ludwig to produce the eggs. With a trembling hand he brought them out: but first the nest, beautifully preserved. It is made principally of black ‘tree-hair’ (lichen), with dried spruce twigs outside, partially lined with a little sheep’s-grass and one or two feathers—a large, deep nest. The eggs—beautiful! magnificent!!—just the character of the American bird. An indescribable glow of colour about them. Ludwig had made for them such a box that even if a horse trod upon it it would not break. . . .

“Almost every day (and it is now the sixth since that of my arrival here) Ludwig has told me the whole story of the *Sidensvans*’ nest, and I am never tired of hearing it:—How the season was very backward; how, in their expedition, he and Piko Heiki were getting very much out of spirits at the little success they met with. How he saw this bird in the sunshine. How, when at last the nest was found, he could scarcely believe his eyes; how he went to it again and again, each time convinced when at the spot, but believing it all a dream as soon as he was at a distance. The rising and falling of the crest of the bird, its curious song or voice—all he is eager to tell over and over again; and I have the fullest version, with all the “I said,” “he said,” “Michel said,” “Ole said,” etc. These Sardinian lads, as you have heard me say formerly, have a good knowledge of the small birds of their neighbourhood, but they are none of them sure whether they have ever seen *Sidensvans* before. As I

have also told you, it seemed to be known to a very few woodmen on that side of the country under the name of "*Korwarastas*" or "*Korwa-lintu*" (Ear-bird). It had occasionally attracted their attention as having feathers on its head standing up like Squirrel's ears. It was not till the second year of my stay here that I ascertained this with certainty. The first summer I believed it to be "*Harrhi*," a bird coming in bad seasons, and properly the common Jay; but it seems that this name is also really sometimes given to *Sidensvans*, and therefore, as well as for other reasons, I am inclined to believe that the bird is only here very occasionally."

In his "Dictionary," Professor Newton tells us:—"In 1858 Mr. Dresser found a small settlement of the species on an island in the Baltic near Uleåborg, and with his own hands took a nest. It is now pretty evident that the Waxwing, though doubtless breeding yearly in some parts of northern Europe, is as irregular in the choice of its summer-quarters as in that of its winter-retreats. Moreover, the species exhibits the same irregular habits in America. Mr. Drexler on one occasion, in Nebraska, saw it in 'millions.'"

From the "Royal Natural History" I cull the following:—"Great interest for many years attached to the nesting-habits of the Bohemian Waxwing, which were surrounded by mystery until solved by Messrs. Dresser and Wolley. The former of these ornithologists found the Waxwing breeding in Finland in the year 1858, only two years after the latter had obtained the nest of a Waxwing in Lapland. Writing of his nest-hunting experiences, Mr. Dresser says that, after finding a tree in which a Waxwing built, 'I climbed up to the nest, which was in the fork between the main stem and the first branch, and not above nine or ten feet from the ground.'" The nest contained five young ones.

And in Sharpe's "British Birds" we find:—"Its breeding quarters are the pine regions in the north of the Old and New Worlds, about the line of the Arctic Circle. It has been recorded as nesting in North-eastern Norway, in Lapland, in Finland, and Mr. Seebohm says that he met with it during the

breeding season in the valleys of the Petchora and the Yenesei. Although the species occurs in the interior of Alaska, apparently somewhat plentifully, only once has its nest been found in the territory; this was by Kennicott, near Fort Yukon, in July, 1861. This species must surely nest elsewhere in the Arctic portions of North America, as it has been observed on the Anderson river during the breeding-time; but at present the Alaskan record is the only one for the whole of North America."

I have recently received three letters from Mr. St. Quintin, extracts from which he authorises me to publish:—

"June 26, 1903. I thought I was going to chronicle a real success in bird-breeding! A pair of my Waxwings, some three weeks ago, began to feed each other, and show various evident signs of pairing (we saw them pair once). Ten days ago I put a rough nest into the aviary suspended from a beam (a mistake). They soon took to this, altered it, and rebuilt and lined it with small roots and feathers. I had not then any of the 'old man's beard,' or tree lichen, which I have now obtained from Scotland. The birds became exceedingly tame, and I fed them well, adding mealworms freely to the ordinary diet. At last we felt sure that there was an egg, or eggs, and expected the hen to commence sitting. Suddenly Mr. Meade-Waldo, who has been here, told me on Monday that he thought the hen was going to build in another place. I am sorry to say this is true, and they are building, but in a more desultory way, in the head of a spruce tree nailed against the wall, in an old Missel Thrush's nest, which they have added to.

"I am afraid they are not so keen as they were! How near success we were you may guess when I say that this morning I found a beautiful egg, perfectly formed and coloured, in the deserted nest. I fear the cause of desertion was that, in a heavy wind from an unusual quarter, the nest (in a cage dressed with yew-boughs, and made up from the bottom with twigs and roots, to receive the true nest of the birds) swung and twisted round. As soon as I noticed this, it was rectified; but I fear it unsettled the birds. I took three other Waxwings out of this

aviary in order to have the first pair quiet ; two of these seem inclined to nest too."

"July 2, 1903. I thought you might like to see a Waxwing's egg *laid in Great Britain*, and am therefore sending for you to see the egg my bird laid in the first nest. She is sitting nicely now in the second nest, and, though I have not ventured to look, from her movements when she 'goes on,' I have no doubt at all that she has the rest of her clutch under her. I know my man will do his best, but do regret that I am leaving home just now. . . . If we do *rear* a young Waxwing or two, I will of course send you a paper on the subject. It seems rather a moot point what may be the food supplied to the young by the parents, berries (of the preceding summer?) or insects. The former seems to be unlikely, but the birds shall have their choice, including of course the much abused mealworm, and fresh ants' eggs, egg, etc. I have never seen the male take anything to the female but mealworms. I expect that this will be what they will carry to the young—should they hatch."

"July 4, 1903. The hen bird is sitting very steadily."

The following I take from Sharpe's "British Birds," already quoted:—

"NEST.—According to Mr. Seebohm, the nest is a large and very compact structure, the outside diameter of one in his possession being seven inches and the inside four inches; it is about four inches high outside, and nearly two inches deep. The foundation is made of twigs of spruce fir and reindeer-moss. The nest itself is composed of feathers and black hair-lichen, interwoven together with very slender twigs and a little moss and inner bark, the feathers being most numerous in the lining.

"EGGS.—From five to six and occasionally seven in number. They are quite unmistakable, being of a lilac-grey or stone-grey ground-colour, with spots of black or blackish-brown, varying in size and intensity, but pretty equally distributed over the surface of the eggs, and accompanied by

underlying spots of violet-grey, more or less distinctly indicated. Axis, 0·95—1·05 inch. ; diam., 0·65—0·75."

Mr. St. Quintin's egg, which he has so kindly forwarded to us for inspection, is doubtless the very first egg of the species that has ever been laid in the United Kingdom, whether by wild bird or captive, and the first egg of the species that has ever been laid in captivity, either in this country or any other. Mr. Grönvold, an expert on the colours of eggs, describes it as follows:—"Of a regular egg-shape; ground colour, light bluish green; surface spots blackish-brown; underlying spots, lilac-grey varying dark and light; a fair number of spots generally distributed; length, 0·98; diameter, 0·69."

As regards the feeding of the young, Wilson tells us of the closely allied Cedar Bird:—"About the last week in June the young are hatched, and are at first fed on insects and their larvæ; but, as they advance in growth, on berries of various kinds. These facts I have myself been an eye-witness to."

Concerning the "wax" tips to some of the feathers, Wilson (on the Cedar Bird) writes;—"Six or seven, and sometimes the whole nine, secondary feathers of the wings are ornamented at the tips with small red oblong appendages, resembling red sealing-wax; these appear to be a prolongation of the shafts, and to be intended for preserving the ends, and consequently the vanes, of the quills from being broken and worn away from the almost continual fluttering of the bird among thick branches of the cedar. The feathers of those birds, which are without these appendages, are uniformly found ragged on the edges, but smooth and perfect in those on whom the marks are full and numerous. They are common to male and female. The young do not receive them until the second fall, when, in moulting time, they may be seen fully formed, as the feather is developed from its sheath. I have once or twice found a solitary one on the extremity of one of the tail-feathers."

As to the name, I protest against the senseless title of "Bohemian" Waxwing being perpetuated by modern writers. The species is not in any way peculiar to Bohemia; on the contrary, it is rather a rare species in that country. *Ampelis garrulus* is THE WAXWING.

And why these continual side-hits against the name "Chatterer!" The bird does not, as far as I know, utter any loud cry, but it does *chatter*. It is a very sociable bird, and when in a flock they chatter away freely. Even in my own aviary, I used to hear my diminutive "flock" chattering away.

I may close by briefly stating that there are only three species in the genus *Ampelis*:—

(1) The Waxwing, *A. garrulus*, with deep chestnut under tail-coverts, breeding all round the line of the Arctic circle, migrating south in winter, and visiting this country irregularly, sometimes in large numbers.

(2) The Cedar Bird, *A. cedrorum*, smaller, with white under tail-coverts, a North American species, going south in winter to Central America, Cuba, Jamaica; an accidental visitor to great Britain.

(3) The Japanese Waxwing, *A. japonicus*, with crimson tail-bar and tip to secondaries, but no "wax" tips. Eastern Siberia, Japan, and Northern China.

REGINALD PHILLIPPS.

I have since heard that young have been hatched, but lived only four or five days, doing well at first, but succumbing apparently to the heat—directly or indirectly—on one very hot day. The female has re-lined her nest and is again sitting.—R. P.

THE BLACK-BREASTED OR RAIN QUAIL.

Coturnix coromandelica.

By L. M. SETH-SMITH, B.A.*

This species seems to have been little known to aviculturists until last year, when a few were imported, and now there seems to be a considerable number on the market, obtainable at a reasonable price.

The male is a very handsome bird, like the male of *C. communis*, but with the black pattern on the throat more strongly marked and with a large black patch covering the middle of the chest and breast:

The female is very like that of *C. communis*.

This bird inhabits the greater part of India, merely changing its feeding ground with the change of the season.

About Christmas, 1902, I obtained a pair of these birds, which had been kept in a large outdoor aviary for some months, and so were in very nice condition. They were put into an unheated covered aviary, a few branches of evergreen being put on the ground as a retreat, and of these they took full advantage, as they were very shy.

Early in February they were let out into a grassed, wired, enclosure adjoining, about 20 feet square, the grass however being too short to afford them cover, which was supplied as before, in the form of evergreen.

Early in May I found, on several occasions, eggshells, the contents of which had been eaten. About the middle of the month, on going into the aviary, I accidentally kicked a tuft of grass, out of which the hen rushed, and on looking I found a nest, or at least a slight hollow in the ground, perfectly hidden, with one egg in it. The next day the egg was lying some three or four feet away from the nest, which was empty, and during the next few days several eggs were found lying about in all directions, some partly eaten and others whole. In Hume's *Nests and Eggs of Indian Birds* Mr. Davidson remarks, "One thing about these Quails I noticed was the enormous number of nests that were destroyed. I hardly ever walked out without discovering broken eggs lying about; but what animal was the culprit I never could be sure, though I suspect the common Crow Pheasant and the large Lizard (Blood-sucker) are generally the offenders."

Upon reading this it struck me that possibly the birds had been frightened when laying and had eaten the eggs themselves, as was the case, I feel sure, with my birds; at any rate it seems a curious coincidence. All the eggs I found were of the same brownish colour, but varied greatly in markings, some being finely speckled, others boldly blotched with dark brown.

This egg-eating habit made me give up all hope of

successfully rearing any young birds. About May 25th, however, I missed the hen. The grass was very high, and I could not watch the birds nearly so closely as I should like to have done, in fact, sometimes I could not see either of them for days. Then came the terrible wet weather, of which we had such an interesting account last month. On June 21st I thought the hen must be dead or else the eggs spoilt by the rain, so I determined to search for the nest. This was no easy matter, as the grass was a foot high and in some places there were patches of nettles three feet high; however, after a long search, I saw the hen dart across a small opening in the grass, and, on looking, I found the nest at the end of a tunnel in the grass containing seven eggs.

I was at first afraid the bird would treat the eggs as she had done before, but on June 23rd I was delighted to see her followed by several chicks, and on visiting the nest I found that all seven eggs had hatched, which speaks well for the plucky little bird who had sat through almost unceasing rain.

But alas! I found three dead the same morning, two more in the evening, and one the next evening. They were supplied with plenty of food, fresh ants' eggs etc. The cause of their dying seems to have been cold, for the hen, being timid, runs away at the least sound, and if the young are not strong enough to follow they die in a very little while.

The only young one that remained, however, was well looked after by the hen, and was soon strong enough to follow her about anywhere. It grew rapidly and when three weeks old was the image of its mother, though considerably smaller.

The cock did not seem to take any notice whatever of the young one.

The note of the cock bird in the breeding season is worthy of a remark, it being a *double* whistle (not with three notes as in the case of *C. communis*) repeated several times, at first softly, but becoming louder and louder as the bird raises his head higher and higher. It sounds more like the note of a Parrakeet than that of a Quail.

REVIEWS.

THE BIRDS OF TENNYSON.*

To those of our members who are interested in the works of the late Poet Laureate, the beautifully got up book by Mr. Watkin Watkins will prove a great delight. Few of the poets were so familiar with the English country-side, and few had a sounder knowledge of the birds, or knew better how to present a more faithful picture of their life habits. It is, therefore, somewhat remarkable that a book like that now before us has not appeared before. Mr. Watkins has done for Tennyson what Mr. Harting has done for Shakespeare, namely, collected and explained the many references to birds to be found in his poems, and his book is rendered doubly attractive by a series of excellent illustrations by Mr. Lodge.

BRITISH BIRDS IN CAPTIVITY.†

Few, if any, of our members who keep British birds to any extent are unfamiliar with the late Dr. Bradburn's most useful handbook, for it is a book that the aviculturist or fancier who attempts to hand-rear British birds, whether he keeps them for show or otherwise, cannot do well without. There is certainly no other book of the kind that goes so very fully into the many matters connected with British birds from a fancier's point of view, and, although some may disagree with him on a few of his theories, no one will deny that his book is most valuable to those who would "go in" for many British birds.

The present edition has been revised and enlarged by Mr. Allen Silver and contains some nice illustrations, as well as a valuable article by Mr. Fulljames on the feeding of insectivorous birds.

* *The Birds of Tennyson*, by WATKIN WATKINS, B.A., Cantab. London: R. H. PORTER.

† *British Birds: their successful management in captivity, with other allied information to fanciers*. By D. J. DENHAM BRADBURN. Third Edition, revised and enlarged by ALLEN SILVER, London: "Feathered World" Office.

CORRESPONDENCE, NOTES, ETC.

HERON-BREEDING IN TUNIS.

SIR,—It has been stated in the *Journal d'Acclimatation*, the *Garden-laube*, and other periodicals that there exists near Tunis an Institution for the breeding of Egrets in captivity, in order to supply plumes (*aigrettes*) for ladies' hats in Paris. It is said that the birds multiply rapidly in a large aviary supplied with trees and water and are regularly "deplumed" twice a year. They are stated to yield on an average "six grammes of feathers worth five francs per gramme," so that the feathers are "more valuable than gold, which is worth only about three francs per gramme!"

I should much like to know whether this circumstantial story is true, for Egrets are not usually good breeders in captivity. Can any of your readers kindly supply me with information on the subject?

P. L. SCLATER.

ROSY PASTORS IN LONDON.

Mr. Frank Finn publishes the following note in the *Feathered World* of August 11th:

"It may interest some of your readers to know that last week a dozen Rosy Pastors were liberated in St. James's Park. I recently imported twenty-six of these birds, a dozen of which I sold to pay expenses, while I gave another dozen for liberation in St. James's Park. One of these died (the only one since shipment), so I replaced it by another before I cleared out the rest. The birds were kept confined about a week, and let out early last week. They much appreciated their liberty, and have been going about the island, behind the keeper's house, and some occasionally crossing to the mainland, where I am told they already attract notice. They come back for food to the place they were shut up in, so they evidently well know their way about."

ORNAMENTATION OF MOUTH IN YOUNG BIRDS.

SIR,—I was watching a brood of five young Cuththroats being fed to-day, and I notice that the inside of the mouth is very curiously coloured—blotched black and yellow, the roof spotted. Has this fact been recorded?

F. H. RUDKIN.

The following answer has been sent to Mr. Rudkin:

In Vol. V. of the *Avicultural Magazine*, pp. 25—27, I have given an illustrated account of the ornamentation of the mouth in the young Gouldian Finch.

Since then, the mouth of the young Cordon Bleu and, I think, one or two other species has been described, but I believe most breeders of the Ribbon Finch have been afraid to examine the young too closely, on

account of the tendency of the parents to throw their young out of the nest. When I bred them the young were invisible from the front of my breeding-cage.

Doubtless the object of the marking is the same in every case—to enable the parents to see better where to place their own beaks when feeding the young.

A. G. BUTLER.

LONGEVITY OF A COCKATOO.

The following interesting note appears in the *Field* of July 4th last: “I have lately seen a White Cockatoo which has been in the possession of its present owner for more than seventy years. It was purchased from a sailor in Bow about 1830, and all that could be learned about it at that time was that the sailor had taken it with him as a companion on three voyages to the antipodes and back again. The bird, which is able to speak very distinctly, is in good health, although it lost a portion of its beak and one toe in a fight with a dog about twenty years ago. It may be added that the bird has lived all of the seventy years it has been with its present master in the East End of London until three or four years ago. It is rarely confined and is not pinioned.—E. J. CAVANAGH.”

GERMAN BIRD-DEALERS AND FANCIERS.

SIR,—Having been obliged to go to Germany lately for a course of baths, I took the opportunity of visiting a few of the bird-dealers in the vicinity of the Black Forest.

Mr. Kestermann (a member) most kindly advised me to go and see Herr Karl Kullmann if I should happen to go to Frankfort-on-Main.

Herr Kullmann is an enthusiastic bird-lover, and a great authority on birds. He keeps them for pleasure, and very courteously showed me his pets. He goes in almost entirely for European insectivorous song-birds, such as Nightingales, Blackcaps, Blue-throated Warblers, Robins, Orphean Warblers, Garden Warblers, etc.

A beautiful Blue-throated Warbler (the white-spotted one) he has had eight years; and I believe I am correct in saying that he has had a Nightingale for close on 16 years. This bird, he told me, comes on his hand, and there sings.

Herr Kullmann keeps all his birds in cages open to the front only, and I noticed that he gives them no sand, but a slip of paper, fitting to the drawer, fresh every day.

Indeed since I have seen his birds and those of a dealer at Bad-Homburg who also makes use of no sand, I have begun to wonder whether it is needful, although we in England have always had the idea that it is necessary to the health of the birds. There is one great disadvantage of sand, to my mind, in the cages of insectivorous birds, and that is if

they have fruit and bits of meat, etc., they so often, in their desire to make the mouthful a suitable size, knock it about in the sand until it is covered with it, and I should think it is a great question as to whether food swallowed in such a state is healthy for them.

Then also, when the birds hop about, their feet often become encrusted with sand mixed with excreta, and this is very bad for them. Sand has a tendency to dry up the feet too much, for birds in their wild life constantly keep them moist in dewy grass. At any rate, there are Herr Karl Kullmann's birds, living for eight, ten, and fifteen years in perfect health, and I never saw Nightingales, Blackcaps, etc., with feet in better condition; or in better all-round health.

Herr Kullmann's address is

Staufen Strasse, 26,

Frankfort A/M.

He is a most extraordinarily clever imitator of birds' songs, and without in the least attaining to the true key notes, or even by whistling, he will, by means of various vocal sounds, convey to you the song of a bird.

He has studied for many years the most desirable manner of feeding insectivorous birds, and has put together a mixture called "Lucullus," which is made up by a bird-dealer at Homburg.

The address is

Friedrich Fries,

Louisen Strasse, 8,

Bad-Homburg, v.d. Höhe,

Germany.

Herr Fries excels in making cages, especially cages for insectivorous birds. They are open to the front only, and the tops are of green plush-silk (or some such texture). The perches are screwed on from the outside, so that they can be moved to any part of the cage, and they do not go right across.

He particularly studies the size of the birds' feet for which the cage is intended; and the result is *quite* excellent. They are not round, but a flattened oval.

Herr Fries' birds are most beautifully kept. He uses peat moss litter at the bottom of the cages, and when he sends a bird by rail, a piece of paper is placed over the peat-moss, and fixed down by means of three pieces of wood ("perches" they might be called), so that when the cage arrives after a jolting in the train, everything is in order; the pieces of wood are removed and the paper which they have held down, and there underneath is a clean bed of peat-moss litter. A great advantage of this moss is that it will keep clean for a very long time; it is only necessary to turn it over and shake it up every morning, removing any dirt, which is easily done. Then, too, the moss is beautifully soft for the birds' feet, and absorbs the water which may be splashed on to it from the bath.

As in the case of sand, it does not do to give the birds food which they will be likely to mess about with before eating (the paper makes this all right), but Herr Fries feeds his insectivorous birds (Nightingales, Sprossers, Blue-throated Warblers, etc.) entirely on the mixture already mentioned—"Lucullus"—and there is with that no need for the bird to put the food in the tray. There was every possible sign that this food is extremely beneficial. Herr Fries is *most* particular with regard to the ants' eggs (cocoon), etc., which go towards making this mixture.

When his more delicate insectivorous birds are moulting, he gives them *nothing* except quite fresh "ants' eggs," which of course in the neighbourhood of the Taunus Mountains and the Black Forest are easily found. Then when the moult is over, he gradually reintroduces amongst the *fresh* ants' eggs the "Lucullus" mixture until the latter once more reigns supreme. He has won several medals for this food; and he tells me that he does send some to England.

I bought of him a beautiful Blue-throated Warbler (a white-spotted one with an *extra* large white spot) which is now nearing the completion of its moult as I write, in the middle of August. The bird is in splendid condition, his feathers tight up, and his legs and feet beautifully clean and slender. He certainly seems none the worse for having been four months without any sand.

At the Zoological Gardens at Frankfort, all the insectivorous birds (a very interesting collection) are fed on "Lucullus." Amongst them there are Long-tailed Titmice, Golden-crested Wrens, Black Redstarts, Great Reed Warbler, Alpine Accentors, Golden Orioles, and many others.

Another German bird-dealer (not mentioned, I fancy, in Mr. Kestermann's list) is

J. M. Hoefflin,

Konradstrasse, No. 4,

Freiburg,

Baden.

His birds are kept in very good condition, and amongst them I saw a Thrush, whose exact name I was uncertain of. He told me it is a Chinese bird. It was too old, or I would have bought it. The general upper plumage was pale grey, and the under plumage (speaking sketchily!) was pale chestnut. I remember seeing the bird figured in Sharpe's "Monograph of the Turdidæ," but have not the work by me at the present.

In conclusion I may add that the German bird-dealers, so far as I have seen, set our English ones an example which some of them might with advantage follow (both for the sake of the birds and the customers), namely, the example of *cleanliness*, which is a natural part of what with the Germans one sees so evidently shewn forth. I mean thoughtfulness for the bird's welfare.

The filth, with its accompanying horrible smells, and the want of fresh air in some of our English bird-dealers' shops are most objectionable; and also quite inexcusable, considering that it is their profession. But perhaps just as there are dirty houses and clean houses, so too with the bird shops.

The result of this slovenly and dirty way of keeping the birds *must* mean disease and a large accumulation of parasites, both of which are only too often, when birds are purchased, carried into aviaries, there to spread disastrously. I went to four bird shops at Frankfort-on-Main, every one of which was beautifully clean and sweet.

There were not so many birds as one sees in some of the English shops, but I would *far* sooner see two or three genuine pairs of Japanese Robins (to take an example) in good plumage and well kept, than a hundred of these birds, minus tails and flight feathers, often clotted with dirt, with perhaps two or three dead ones lying in the filth at the bottom of the cage, and the drinking water looking as if it had been taken from a sewer.

What it must be to the poor birds after luxuriating in pure fresh air (day and night), after washing in clear streams and pools, after good food obtained amongst leafy trees and cool grass, I can't imagine.

H. D. ASTLEY.

THE EGGS OF THE GREY SINGING-FINCH, &c.

SIR,—If my small experience is of any value, I may say that my Grey Singing-finches had four eggs in their first nest (see May number) and hatched four young. In the next nest there were three eggs, one hatched and in the third, three clear eggs, they were then moulting (July).

All the eggs were creamy white, entirely without spots.

I once had a pair of Bearded Seedeaters (see page 5, vol. 6), their eggs were spotted at the larger end, and were somewhat like Canaries' eggs, they were always four in number.

GRACE ASHFORD.

SIR,—Mr. F. H. Rudkin sends me an excellent photograph of the nest of the Grey Singing-finch built in a Hartz cage hanging on the wires of his aviary: he says—"Eggs four in number, white finely spotted with black at larger end."

A. G. BUTLER.

AMHERSTS AND GOLDEN PHEASANTS.

SIR,—Yesterday, a male Amherst killed a male Golden Pheasant, in a few moments, while I was sitting in another part of the garden. The birds had been in the same aviary for nearly two years, and had always been perfectly friendly. Another Golden Pheasant is now in the same aviary, and they are perfectly quiet; is it safe to leave this one without making a wire division in the run? I had hesitated to do this as it so curtails space;

and I had thought that there would be time enough if I saw *signs* of fighting.

Now, as I want to buy some more, I shall be glad to know which kinds will agree together; for instance, could I make a wire division down the length of the run, and keep two male Amhersts on one side and two Golden on the other? The females are such plain birds I do not care to have them; and I do not like the idea of only two Pheasants in a run—it does not look full enough.

Before I had an Amherst, my three Golden males (which were of one brood) never fought; is this a general rule, or is it only Amhersts *and* Golden that will not do together? OCTAVIA GREGORY.

The following reply has been sent to Mrs. Gregory:

1. The case of the Amherst cock killing the Golden—I have found Amherst's very uncertain: some are amiable, some far otherwise. I should be always afraid of trusting an adult Amherst cock with any other cock.

2. I have known Golden cocks live quite amicably together, as long as there are no hens with them, or near them; but even then in the breeding season they have sudden fits of passion. Much depends on the space given them. My own pheasantries are very large, and there are many ways of escape for a persecuted bird. The safest method when cocks are kept together is carefully to watch if one bird shows an inclination to persecute others; cut one of his wings sharply, and take care that there are plenty of perches, or better the top of a shed or two, on to which the persecuted can fly, and where the persecutor cannot overtake them.

3. It is not solely that Amhersts and Golden will not do together; there are savage examples of both races, but I have found Amhersts the worst.

O. E. CRESSWELL.

AVIARY NOTES.

SIR,—I wrote last year, and gave my experiences of breeding Virginian Cardinals. This year, at the end of April, they went to nest. I did not remove the cock bird, and he helped the hen, and brought up two fine young birds. The last two years when I left him in the aviary he ate the young ones, so this is the first year he has not been taken away. The next nest, built in the same cage-box in the inside of the aviary, contained three young birds. The parents fed them till they left the nest, which they always do when half feathered; it was a very cold day, and one left in the nest, with no feathers on, died. I picked up another nearly dead, and returned it, but it got cramp; this, and the healthy one, I brought in and hand-fed, the same way as I reared one last year, but the cold day must have been too much for them, for they both died. A pair of Popes I bought last winter were in the other aviary adjoining, with a pair of Green

Cardinals bought in February, and a lot of other small foreign and English birds. The Popes laid, but as they went for the birds that came near their nest I removed them to a little hutch about a yard square, where they continued to lay. One egg I put under a Canary hatched, though most of them were clear. The Green Cardinals are very tame and built in the outside of the aviary, and they sat alternately, changing nests whilst I was looking on, but I am sorry to say their eggs are clear.

I am much troubled with red mite in my aviary; one side I have syringed with creosote, but the birds would not go in for some days, as the stuff was very strong. The other side was lined and done with Jeye's fluid this spring, but several Canary and mule nests have been deserted when hatched, and the young have been covered with red mite. They do not mind Keating, as all the boxes are done often out, and fresh hay with Keating put at the bottom, and they were scalded this spring. I find that only creosote kills them. Can I put anything into the birds' bath water, as they pick themselves. A Bullfinch hatched and then deserted owing to these mites.*

I have a pair of tiny Quails, but the cock nearly pecked the hen's eyes out, and I had to separate them. The cock Saffron-finch paired with the Canary, but she deserted; the eggs were fertile, I believe. The Virginians are sitting for the fourth time; the eggs disappeared the third time when ready to hatch.

I wish some more of the members would describe their aviary experiences for the benefit of others.

I have a pair of Robins: the cock only calls to the hen if separated: he never sings. Last year a Lavender Finch, two Yellow-cheeked Waxbills, and three Cordon Bleus, one of which I bred, stood 18° to 24° of frost in my out door aviary. I should like to know if many of the members have tried leaving the Spectacle-birds out.

M. C. HAWKE.

THE ELECTION FOR THE COUNCIL.

Members are reminded (pp. 311 and 313, July number) that an Election of Members to serve on the Council for next year is about to take place. The names of new Candidates, duly seconded, must reach the hands of the Business Secretary before

* Fill up all the chinks, crevices, and sleeping places of the mites with common soft-soap as bought, using it freely, and leaving it alone just as smeared in. After dark, for several evenings, rub the walls, perches, &c., well over with a cloth, which has been dipped in paraffin. If done with intelligence, this should entirely free the place of mites; and if, in the spring, soft-soap be freely used as directed, not a mite should appear during the succeeding summer. Old nesting material should be removed and burnt.—R. P.

the 10th of September; and members of the present Council, desirous of standing for re-election, are requested to intimate the same to him by the same date.

THE SOCIETY'S MEDAL.

The Society's Medal has been awarded to Mr. D. SETH-SMITH, for having bred and fully reared three examples (two broods) of the Greater Button-Quail, *Turnix tanki*.

Mr. LESLIE SETH-SMITH has succeeded in breeding the Black-breasted or Rain Quail, *Coturnix coromandelica*, and an article on the subject is now published.

The Society proposes to award him a Medal for having bred this species it is believed for the first time in the United Kingdom. If any previous instance (a week later, Mr. Thorniley also bred an example) should be known to any of our members or readers, it is requested that they will kindly communicate at once with the Business Secretary.

POST MORTEM EXAMINATIONS.

For Rules see previous Numbers.

GREEN AVADAVAT. (The Hon. Mrs. Carpenter). Been kept in an outdoor aviary. [Acute inflammation of liver caused in all probability by cold and damp].

HEN BULLEFINCH. (Miss E. Brampton). Found on floor unable to fly, thought wing was injured, and appeared to droop. Gave a dose of Epsom salts. [Bird died as a result of an apoplectic fit. The apparently injured wing was due to paralysis caused by pressure on one side of brain caused by extravasated blood from a ruptured blood vessel].

TWO LAVENDER FINCHES. (Mr. Tomes). They seemed quite well just before they died. [Apoplexy].

(A) ST. HELENA WAXBILL, (B) GREY WAXBILL, (C) ORANGE-CHEEKED WAXBILL. (Lady Carnegie). A Had ailed ten days and is very thin. [Chronic disease of liver and pneumonia. B and C seemed quite healthy until two days before damp weather set in. Pneumonia in both cases. I did not receive other birds mentioned].

BLACK-BREASTED QUAIL. (Mr. Thorniley). (Bird died from acute congestion of lungs. Am sorry body was buried before receiving your second letter].

TWO YOUNG VIRGINIAN CARDINALS. (The Hon. M. C. Hawke). One was very bare of feathers and hen was not sitting on it. I gave it to a Green Cardinal sitting on clear eggs. They fed it all that afternoon and evening with mealworms, but it was dead at 8 a.m. next morning. The other one left with parents I found dead this morning. [1st Died of fits, no doubt from inability to digest the mealworms and which caused intestinal irritation. 2nd, Congestion of lungs].

LIOTHRIX. (The Hon. M. C. Hawke). Well until three weeks ago, then seemed to get worse every day. What sex was it? [Liver disease of long standing. It was a hen].

PATAGONIAN CONURE. (Miss R. Alderson). Had been sleepy and listless for some weeks, I turned it from a cage to an outdoor aviary, and here it seemed much better. It frequently sneezed but seemed better; on Sunday it was worse and died on Tuesday. It seemed very thirsty and bowels were relaxed. [Bird had congestion of liver, but the immediate cause of death was enteritis, I should say caused by a chill possibly contracted when turned out of doors. It was a hen].

PENNANT PARRAKEET. (Mr. Leigh). Bought in June, put in an outdoor aviary. Fed on canary, hemp, and sunflower seed. Well until a few days ago, became dull and disinclined to fly. [Bird died of inflammation of liver, and I fear the sunflower seed may have indirectly been the cause owing to the large quantity of oil it contains. The acute phase of the disease might have been caused by chill upon the already over stimulated liver. In my opinion, sunflower seed should be used with caution, especially when given with hemp. It was a male].

GOULDIAN FINCH. (Mrs. M. Charrington). In outdoor aviary three years; perfectly well until yesterday morning, seemed paralysed in afternoon. Had commenced nesting. [Apoplectic fit was cause of death. I think you are to be congratulated on keeping your birds so long a time].

BIRD. (Mr. Whytehead). [Too decomposed to make a satisfactory examination].

BENGALÉE AND CANARY. (Miss Brampton). Bird panted very much the day before he died. [Bengalée died of pneumonia. Canary died of acute congestion of lungs following on chronic asthma. Please note the Council do not wish for *post-mortem* reports to be made on poultry, Pigeons, and *Canaries*].

POPE CARDINAL. (Mr. Rycroft). Found dead. For two days had seemed dull. [Died of enteritis in all probability from chill].

ARTHUR GILL.



SILVER-EARED MESIA.
Mesia argenteauris

Avicultural Magazine,

BEING THE JOURNAL OF THE
AVICULTURAL SOCIETY.

New Series.—VOL. I.—No. 12.—All rights reserved.

OCTOBER, 1903.

THE SILVER-EARED MESIA.

Mesia argentaurea.

By REGINALD PHILLIPPS.

I think it was Mr. Wesley T. Page who first drew our attention (VII., p. 168) to some rare and beautiful birds that had been presented to the London Zoological Society by Mr. E. W. Harper, and which, in June 1901, were on view in the Parrot House. Amongst these was a male Silver-eared Mesia, which he at once recognised as being akin to our very old friend the Yellow-bellied Liothrix, *Liothrix lutea*. Early in 1902, Mr. Harper personally brought some specimens to this country, five I was told. Some of these have appeared at the Bird Shows, and will have been noticed by several of our Members; and I suppose that these are the three, one male and two females, which rather recently have found a resting place in Mr. D. Seth-Smith's comfortable aviaries. But the other two came into my hands on the 27th June, 1902; and it is this pair that form the foundation of the present article. Before taking up their story, however, let me say a few words concerning the species generally.

As already stated, the Silver-eared Mesia, called by Jerdon the Silver-eared Hill-Tit, is nearly allied to the common Liothrix, although placed in a separate genus, and like that species is a native of the Himalayas. It, however, keeps to a lower elevation, a circumstance that points to its being a less hardy species. Its range too is not so extensive, for, while the Liothrix may be found as far away as Southern China, the Museum Catalogue (VII., p. 643) tells us that the Mesia is

confined to the "Eastern Himalayas, throughout the hills of North-Eastern Bengal and Burmah to Tenasserim." In a letter to me Mr. Harper said that they are very rare even in the Indian market, and that during the past three years (he was writing in June, 1902) he had seen only seven; and Mr. Frank Finn says that he has never seen this bird wild.

Mr. Grönvold's excellent drawing presents the plumage of this species to our readers; it may be distinguished from the *Liothrix* by its black cap, the silvery-white ear-coverts, and by the (when in good condition) bright light-yellow bill.

The sexes are different, a point of immense value and relief to the aviculturist. The general plumage of the male is brighter and more gaudy, especially on the wings and around the base of the tail, and the tail-coverts of the male are deep red, of my female now yellow-green like the nuchal collar. The shades, and indeed the actual colours in these birds, at any rate in captivity, differ considerably, so that one can speak only generally of some of them, but a glance at the tail-coverts will always, I suspect, enable one to distinguish the sex. In the *Feathered World* of 12th January, 1900, Mr. Frank Finn says on this point:—"Also the male has a bright red patch round the root of the tail, which patch, being buff in the female, furnishes a ready means of discriminating between the sexes"; but this is in India, not in an open aviary in London.

There is but one other species in the genus, *Mesia laurina*, which is "Confined to the higher ranges of the island of Sumatra," and is not likely to find its way to this country yet awhile.

The ordinary song of the *Mesia*, usually frequently repeated, *especially in the early morning during incubation*, as a song, is very poor; but it is generally uttered in such a bright cheerful crisp way as to form a pleasing and noticeable addition to the many voices that emanate from the aviary. Although but one song, it has two phases, the one consisting of five the other of six notes, but there are occasional differences and divergences in accent and inflection. Mr. Finn has put the second phase into words, and says:—"The male only,* I think, sings, but his

* I am not fully satisfied on this point.—R.P.

notes, though remarkably loud and clear, are not to be compared with the Pekin Robin's. One male I had always seemed to me to say, or rather shout, *You—just—come—over—here*, a very suitable call for a hill bird, as this is." But he disregards the pause, sometimes a very marked one, which usually follows the first note:—"Boy: just—come—over—here," and occasionally after the second, "You—dolt; come—over—here." The song of my male more frequently consists of the five bare notes, varying in intensity, and often uttered with much force:—BOY: YOU—JUST—COME—HERE. During incubation, in the early morning, my bird would ejaculate this song with o'er much energy and emphasis for the sensitive ears of my neighbours, ears attuned to the symphonies of cats and the melodies of dogs, and to whom the singing of the birds comes as a discordance and an abomination. One morning, after a "complaint," the song commenced at 4.18, and, thinking of my watchful neighbour, I quailed and writhed at each repetition, and hoped against hope that each might be the last, but it was uttered with unabated vigour thirty-three times in succession. I thought this was sufficient, but, four mornings later, commencing shortly after 4 o'clock, the irrepressible creature went on and on until I retired into the land of Nod on or about the 150th repetition of the stern invitation to the heedless boy—let us hope that I lost count, or that my sleepless neighbour was as sound asleep as I soon was. It is specially noticeable that whatever phase or variation of the song the bird may commence with, that particular variation is mostly adhered to throughout all the repetitions. One morning, for instance, the joyful father started off in a regular jingle:—"Come along—and see—my babe;" this was repeated a great number of times, but when once dropped was lost. When one thinks of the variations in the song, one feels that a young bird, carefully trained, might be taught snatches of other songs, or even to repeat a short sentence; but the strictness with which it keeps to a limited number of notes, rarely exceeding six, is discouraging.

Then there is the ordinary call-note, used by male and female, consisting of one note repeated quickly several times, but so seldom uttered by my two contented birds that I hesitate

to describe it. I think I am not far wrong if I say that it much resembles that of the common *Liothrix*.

Then again there is the watchman's alarm-rattle, which I have never heard but when the birds had young. It consists of a low grating chatter, the tail vibrating in unison with each "click" of the rattle. It was not always uttered with the same intensity, but whether this was regulated by the supposed urgency of the danger, or whether the more feeble alarm was that of the female, I could not determine. On September 5, a mouse having been seen near to the baby's box, there was a great ado; but only the male was clattering, the female joining in in perfect harmony with a loud "tsit." I improved the occasion by slipping round and inspecting Nest No. 5.

We are told that some of the colours (presumably of a preserved skin) of the *Mesia* fade if exposed to light:—"The colours in this species fade on exposure to the light, the olive-colour of the back shading into grey, the underparts into ashy white, while all the brilliancy of the bright portions of the wing and of the tail-coverts disappears." (*Mus. Cat.* VII., p. 643). "The colours fade to slaty, with a faint tinge of green, and paler beneath." (*Jerdon II.*, p. 252). It is not only in Museum specimens that the colours fade, but also in the living bird, at any rate in my garden, my pair being now quite of an ordinary colour, green-gray predominating, though the male still has some bright red on the wings and tail-coverts. In August last I examined the male which has been in the Parrot House at the Zoological Gardens since 1st January, 1901, and found it but little brighter than mine, but with a duller and darker bill. The bills of my birds, since they have been in condition, are of a bright clear yellow, pointing to an improvement in health since they were painted by Mr. Grönvold.

At page 244 of Vol. VIII. of our Magazine, Mr. E. W. Harper, in his interesting article on the Blue-winged Siva, says:—"At the present time I have Sivas, Mesias, Yellow-eyed Babblers, Sibias, and Common Babblers all in one apartment. These birds are almost exactly alike in general habits, and are on the best of terms with each other. A glance at them after roosting time is

sufficient to verify this, owing to the snug way in which they are packed side by side upon the perches. So closely do they sit, that their tails almost invariably cross those of their neighbours." Surely Mr. Harper must have overlooked the Sibias when he penned the words "These birds are almost exactly alike in general habits." My Mesias detest the meddling interfering prying Red-eyed Babbler*, and likewise the Sibias have no respect for him and occasionally swoop at him savagely; and the general habits of the Sibia, a species which we described in our June number, are about as unlike those of the Mesia and Babbler as can well be. While the light-bodied Sibia is so fond of the air, and takes so much of its prey on the wing, and is constantly darting hither and thither as light of "foot" as a Springbok, the Mesia hops and clambers about amongst the foliage, hunting for tiny insect life which it picks off the leaves, but never darting into the air. In vain did I, when they had young, breed and entice flies into the aviary and to the very food dishes, regardless of olfactory consequences, but they absolutely ignored them. It has not the same power of sucking as the Sibia has, and generally takes its food differently. If I may judge by my own specimens, the Mesia and Sibia are unlike, and in many ways diverse.

The Mesia is fairly general in its tastes, devouring a good deal of tiny insect life, a fair amount of fruit, and possibly a little seed. It will take very small cockroaches, but seems to have no idea of tackling anything too large to be swallowed whole. Its inability to cope with any but small insects very greatly added to the difficulty of rearing the young in London where insects are practically unprocurable. Gentles my birds would never look at, but they did their best to kill themselves with mealworms during the nesting period. Three things I think I noticed. While the first nest of young was in hand, they so upset themselves with mealworms as to become demoralized, but when the second nest containing young came on they

* Now that my Yellow-eyed Babbler (see page 83 of this volume) has become adult, the eyes have turned deep red. A fine male which was forwarded to me soon after death not long ago had also red eyes; and the eyes of the one at the Zoological Gardens are reddish. Some time ago Mr. Heselton wrote to me about the "Red-eyed Babbler," which would seem to be a more descriptive name for the species.—R.P.

were more temperate, as if they had learnt a lesson. While they had young to feed they seemed to give up fruit, which, as they fed from the crop, is suggestive; but they took a little sop. And after they had nearly killed themselves and their young one with wasp-grubs, they suddenly almost deserted them. Ordinary insectivorous food is always within their reach, and is just pecked at when they can get nothing better. It seems to me that insect life, gathered from the foliage of trees, is probably their principal food in the wild state. My birds do not betray any disposition to search for food along hedge bottoms or on the ground.

The Mesia would seem to be a good liver in captivity. I have heard of only six examples reaching this country, and all the six are still alive and well.

Let me now take up the story of my own birds more definitely.

For over a fortnight the two Mesias were kept in a flight-cage in the house, to enable them to gather themselves together a bit; and it was whilst they were thus detained, that is, as long ago as the 14th July, 1902, that they were sketched for our magazine by Mr. Grönvold; and on the following day they were loosed into the aviary.

During that year at least there was nothing more to be expected of them than that they should pick up their strength and become accustomed to their new surroundings and companions. Months rolled on with, happily, no startling events to record of them. Every night they were carefully housed in the bird-room; every day, except when cold, they would fly into and spend in the garden; and from time to time during the spring of this year, much too early to please me, they betrayed a disposition to go to nest.

In books I can find but little information about the nesting habits of this species. Jerdon only says:—"Its manners are very similar (to the *Liothrix*), and the nest has been brought to me, with the eggs very like those of the last, but with the spots less numerous"; and Mr. Frank Finn:—"The nest and eggs are very similar to the Pekin Robin's."

On May 17th, I transferred my pair to the reserved aviary.

On the 26th they commenced building in a lime tree in the centre. Last year's long shoots had not been lopped, but had been wound round and round, and interwoven hither and thither, so as to form a head. From this head the shoots of the year grew up straight and fairly thick, as from a pollard. Of this first nest I cannot say much; externally it had the appearance of a bulky solid deep nest of hay, grasses, and dead Virginia creeper ends, firmly fixed amongst the young shoots some seven feet above the general level of the garden. Both birds assisted in the building, the first materials carried being the creeper, dragged from the growing plants, much force being used when necessary. For five days the little architects were greatly disturbed and discouraged by a succession of terrific thunder-storms, accompanied by tropical torrents of rain. Nevertheless they persevered with remarkable tenacity, duly finished their work, and commenced sitting on the 7th June. At first the female did most of the work, and perhaps on wet days; but, as soon as they had settled down, the male customarily sat during the day, the female at early dawn, late evening, and during the night, the male roosting elsewhere.

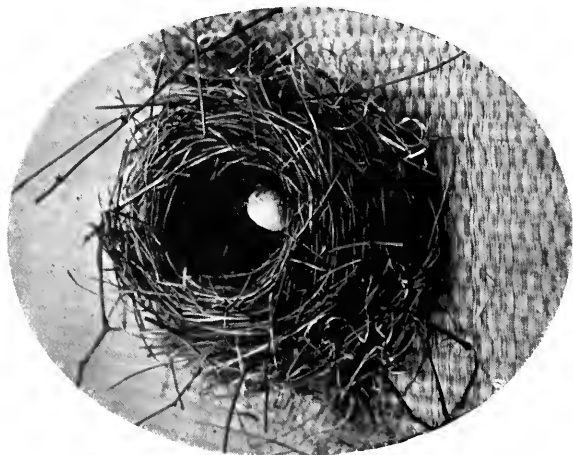
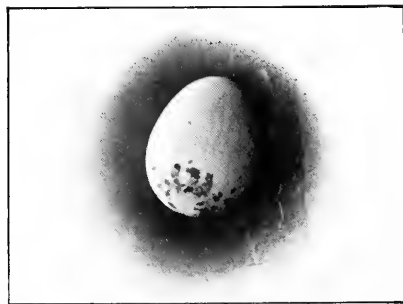
The newspapers had a good deal to say of the rain that fell in London at this time; and for some sixty hours before the young were due to be hatched it came down without cessation. *Before* the sixty hours were up, twenty-five million tons of rain were reported to have fallen in Inner London; and the cold for the time of the year was intense, June 19th being reported as the coldest June day on record. In our August number, Mr. Meade-Waldo's interesting but most pathetic story tells our Members how the wild birds suffered in this corner of England. And yet these two Mesias stuck to their nest through it all. How *did* they manage it! How *could* they have endured it? I observed that during long spells of rain they relieved one another on the nest at frequent intervals. On one occasion the female came off so soaked and sodden it seemed impossible that she could continue, but she did, and I do not know that the trial, although very severe, really injured their health; but they were well seasoned, *and had been well taken care of and protected during the winter months.* Mr. Finn wrote me on August 20th:—"The

Mesias' want of pluck is interesting ; I have noticed the same thing in *Liothrix*, which, however, makes up for it in presence of mind ! I am not surprised they stand the rain well as the Himalayas are rainy enough in all conscience. You should see the great tresses of moss on the trees there !"

June 19th, about the day the eggs were due to be hatched, was not only the coldest day but was likewise very wet ; the male sat all the day, but I could not detect any signs of young. On the 20th and 21st, both parents were feeding well, and appeared to be *carrying* the food—only mealworms as far as I could see ; but day by day they seemed to be carrying less. And I observed also how they allowed other birds, of which there were too many, to come to the nest and inspect its contents, making perhaps one dash at the intruder but not persevering. The Yellow Sparrows, *Passer luteus*, whose home was close by, were often sitting on the edge of the nest. On the 25th, I felt and found there was then *not less* than one young bird alive, and having satisfied myself on this point I hastily retreated ; and on that day at any rate the parents were carrying mealworms. But the carrying became less frequent ; and, on the 28th, on again feeling, I found the nest quite empty, neither could I find the slightest trace of eggs or young.

I left this nest as it was, as I wished not to disturb the place. I tried, however, to drive the Yellow Sparrows out of the aviary, but signally failed. The rain had caused the vegetation and foliage to become so dense that I found myself helpless ; and I had to have regard for other nests and could not disturb the aviary overmuch.

On July 2, the Mesias were busy building in the same tree, not much more than a foot from the first, but this nest, instead of resting on the head of the tree, was slightly above it and suspended among the upright shoots, and on the 7th they commenced sitting ; but they sat feebly, coming off for mealworms every time I entered the aviary ; and on the 12th the nest was deserted. It contained but one egg (see figure of egg and nest), which had the appearance of having been pecked in three places. Perhaps the birds, weakened by their previous hard-



NESTS AND EGG OF THE SILVER-EARED MESIA.

ships, had laid only one egg, but who had pecked it? or were the "pecks" really claw-marks from nervous fear on the part of the sitting-bird when cats invaded the aviary at night, and stationed themselves, as I found them doing more than once, directly over the nest? It was suggestive that, although assisting heartily in its construction, the male afterwards seemed to take but little interest in it.

This nest I pulled down. There were other nests about, the tree was pretty thick and I was unaware of any peculiarity in its construction, it was rather a stretch and I wanted to retire as quickly as possible, and I irreparably damaged its most interesting feature. Several dead Virginia creeper ends had one end laid along and fastened to the outside of the nest, and the other bound to an upright shoot of the tree. This was uniform all round the nest, which was thus firmly tied with hawsers to various small boughs. In nests 1, 2, 3 and 5, the first materials carried were invariably these ends of the creeper; nest No. 3 is also figured, but about two inches below it, in a fork, there was a large mass of material, presumably a proposed foundation, but which was never joined to the nest proper suspended above it.

But to return to No. 2. I had to use considerable force to pull it from its position, thus breaking many of the "tentacles" and displacing the others; and it was further damaged before it reached the hands of Mr. Seth-Smith, who most kindly photographed the egg and two of the nests for us. With the exception of the creeper ends, and a few leaves at the bottom, it was constructed mostly of dead grasses of various kinds, with a lump or two of the "hair" supplied in the nest-bags of the shop, the lining of course being of much finer materials—no feathers. It was solidly built, with much outside material, the following being about the dimensions in inches of the nest proper, which seemed to be a counterpart of the first nest:—Diameter varying but about $5\frac{1}{2}$, of the cup $2\frac{1}{4}$; height $3\frac{3}{4}$; depth of cup just over 2 inches; thickness of wall at top $1\frac{1}{2}$ inch. The egg is pinky-white, with an irregular zone of red-brown blotches inclined to yellow at the larger end, the latter being washed with yellow-brown.

On July 14, the two birds were very busy building in a

scraggy holly, some four feet above the ground, but on the following day they stopped work:—the nest had been appropriated by a Crimson Finch. With much difficulty I succeeded in ejecting this slim, evil-tempered bird from the aviary, and also two other “objectionables,” and on the 16th had the satisfaction of seeing that the Mesias had returned to duty. On the 19th, once more they commenced sitting—and stopped on the 25th. I examined the nest and found it quite empty; but both birds had sat well, and I am certain that there had been eggs. Who was the culprit? A few days later I detected the female Violet Tanager slipping out of the Yellow Sparrows’ nest; and then it flashed across my mind that on several occasions I had seen this pair of “innocents” hovering about the other nests. To remove a Violet Tanager is a simple matter; one has but to take away the banana, and within a couple of hours it will follow you like an old ewe when one has her lamb in one’s arms, so they were quickly disposed of; and the Mesias were not afterwards disturbed in the same way. This nest was practically suspended from three branchlets of the holly, of about the thickness of a pen-holder, which jutted out at an angle of some 45 degrees, to two of which it was securely lashed. It was constructed of grasses, very fine inside, with a few pieces of dead Virginia creeper outside.

Nest No. 4 was commenced on July 26. This one was built at the near end of the aviary, close to the general aviary, in which there are birds of many kinds, some of them detested and feared by the Mesias, who nevertheless deliberately set up house thus close to them. Every evening these birds retire to the bird-room, in which they are shut up that they may not disturb the morning slumbers of my unsympathetic neighbours. But the Burrowing Owls are then loosed; and one of the favourite perches of the old male is close to the Mesias’ nest. Moreover, while the Mesias were sitting, the two baby Owls were growing their flights, and, when loosed of an evening, their favourite playground was a mound opposite the nest, on and from which they would spring into the air again and again, trying their new wings, and sporting about, full of youthful vigour and play, a charming sight to behold—but hardly an attractive one to a

small timid sitting-bird one might suppose. To these nightly horrors must be added the wild shrill screams of the nervous mother, uttered night or day at sight of man or beast. I feel sure that in the choice of the sites of nests 3, 4 and 5 the fear of the cats chiefly influenced them. Again, although No. 3 would not have been entirely safe from a cat inside, No. 4 was perhaps quite so. About $5\frac{1}{2}$ ft. from the ground, it was suspended between two outside twigs of a golden elder bush, on twigs so unseasoned and unreliable that my first impulse was to destroy it as unsuitable and unsafe. However, I reasoned that every day the wood would be getting more tough, and I decided to leave it alone. Above the nest, there were several layers of leafy branchlets, which effectually concealed it from cats on the top of the aviary.

On July 26 and on the morning of the 27th, there was nothing but a rope ladder of hay, connecting two twigs about four inches apart; but by the evening of the 27th the latter had developed into a hammock suspended between the two twigs. As the rains came down, the bindings of hay seemed to stretch and appeared rotten; and occasionally I schemed with my eye how best to arrange a support without disturbing the birds. Happily the need for action did not arise; the Mesias had done their work well, so well that even when the wind blew hard the nest never lost its level, but, with the sitting-bird upon it, was tossed hither and thither and high and low, without any mishap; and now in September, discoloured, deserted and forlorn, it still retains its position and bears testimony to the good work of the clever Mesias. The position of this nest was delightful for me. From the outer aviary I could at any time see if a bird were on; and from the path just inside, where I attended to the food and water dishes, at a distance of about four feet, I had a good view of the nest and could make my various observations.

On the 31st, observing signs, I felt in the nest and found one cold egg. From that night they commenced to sit and, on the following afternoon, being offered a chance which was not repeated on the succeeding days, I again felt and found two warm eggs. Now I could be certain that the birds were not playing the fool, but I am perfectly certain that they were

doing so with the third nest. On August 13 there were no signs of young, but on the following morning the mother asked in a lukewarm way for a mealworm. Later in the day, however, both birds were at me, and I knew that another Mesia had been born into the world.

(To be continued).

ON BREEDING THE DEMOISELLE CRANE

(*Anthropoides virgo*) IN CAPTIVITY.

By W. H. ST. QUINTIN, F.Z.S.

Readers of the Magazine will recollect an interesting paper contributed a few years ago by Mr. Lascelles, describing the hatching of two young Demoiselle Cranes by a pair then in his possession at Lyndhurst. Unfortunately from various causes these young ones came to grief, and I believe before another breeding season came round one or both parent birds had been killed by foxes. I have been more fortunate this summer, for a pair of these Cranes which I have had for about six years have reared two young, which are now fullgrown, or at least of the same apparent size as the parents.

After laying eggs several times, which always proved unfertile, the birds went to nest at the end of April this year, but contrary to their usual custom laid, instead of two, only a single egg. Partly on this account, and partly because the weather was then particularly cold and unseasonable, I took this egg, and the birds almost immediately selected another very suitable site, five or six feet off a small stream, and laid two eggs. There was no real nest, only a few short dead sticks, perhaps half a handful, scattered loosely on the spot where the eggs were deposited.

The first egg was laid on the 7th May, the second on the 9th, and the birds began to sit on the latter day.

Both parents, as they always have done, shared the task of incubation, frequently changing places during the day. Though really perfectly tame, these Cranes are very secretive when

sitting, and slip off the eggs at once, walking off in different directions, pretending to feed, and showing a considerable amount of strategy in their efforts to draw an intruder away from their treasures. If one approached the eggs, their anxiety was great, the female generally scrambling over the ground as if injured, while the male would erect his neck plumes, and do his best to intimidate.

On June 3d the young birds could be heard, and next day one egg was clipped. The first young one was hatched on June 5th. It spent most of this day in the nest. Once we saw it standing up about two feet away from the other egg, and the old one was trying to coax it back. The next morning the second little Crane was hatched. It stayed in the nest all day, one parent brooding it, while the other one could walk a little, and was sometimes two or three yards away, closely attended by the second old bird. I saw the latter once holding it's beak down to the young one, apparently offering it some small insect, but it did not then seem willing to feed. I decided, as there seemed some risk of the little birds falling into the stream, to run a roll of narrow wire-netting between them and the water. This we safely accomplished, my man arranging the netting, while I held the young birds in my hand, as we were afraid of the old ones trampling upon them in their excitement. The parents soon settled down, and we left them for the rest of the day.

On the 7th, the Cranes took the young up a bank on to the level part of the paddock, and at once began to forage for them in the long grass, and carried to them a few mealworms which, fearing the supply of natural food might be insufficient, I threw to them. The young birds were taken down the bank again at night and were brooded close to the old nest. That was the last time that they returned to the nest; but for some weeks the young were taken at dusk, or during the day if rain fell, to a dry place under a beech tree, on the top of a bank, where the grass was short. No better roosting place in the field could have been selected, and in this as in other ways the parents showed much intelligence, as well as the greatest devotion and care. As long as the young were feeble the old ones searched the long grass at a distance of some yards, and brought each insect separately to

the young, each parent attending to one young one. As the young became stronger they would advance to meet the approaching parent, and receive the insect. Finally they promenaded the field in line up and down, the young in the centre, and the two old birds on the flanks, each picking the flies off the grass, and handing it to the young one next to it, the latter taking it with great dexterity, so that the progress of the quartette was scarcely delayed. By degrees the young might be seen making pecks at insects settled on the grass in front of them as they advanced. But it was not till the 23rd June that I saw the young pick anything for themselves off the ground (mealworms).

At this time the bird first hatched appeared twice as large as the other. Its twenty-four hours start seemed to give it a great advantage over the other, and it probably did get more than its share of food so long as they received everything from the parents' bills. At this date (August 24th) it has quite grown up to the other, and there seems no appreciable difference in point of size. For the first twelve days I believe the young lived entirely upon insects captured on the grass stems and foliage, and on a very few mealworms, occasionally thrown to them. Small earthworms, yolk of egg, etc., the parents would not offer to the young, but devoured themselves. On the 18th I saw the old birds give the young some meal and even grains of wheat, and from this time they throve and grew rapidly.

The young Demoiselle differs from the other immature Cranes that I have seen in that the plumage is not fawn or sandy-coloured at any period, but grey, though duller, and less silvery, than that of the adult.

The cheeks are white, but, as Blyth says in his *Monograph*, the ear tufts are "only slightly indicated," and the elongated tertiaries, and pendent breastplumes so ornamental in the adult are at this early age not noticeable.

The risk of trying to keep Cranes unpinioned was exemplified in this instance. These young birds could fly before their quill-feathers were fully grown. Consequently, though we shortened one wing as closely as was possible at the

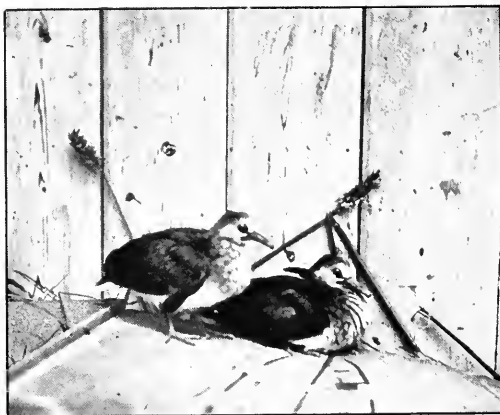


FIG. 1.



FIG. 2.



FIG. 3.

LEPTOPTILA JAMAICENSIS.

time, it was insufficient to prevent the birds from getting up into the air, or even soaring. I was away from home at the time, but I was told that it was a pretty sight to see these two birds flying round in a circle with a diameter of almost a mile, at times 150 yards up in the air, from which elevation they fortunately always descended to alight near their distracted parents. In the end, with some difficulty, they were captured, and the feathers which had completed their growth were further shortened. So the birds are now safe until we have time to properly pinion them.

NESTING OF THE WHITE-FRONTED OR VIOLET DOVE.*

Leptoptila jamaicensis.

By Miss R. ALDERSON.

I think most aviculturists who have at last bred a beautiful bird after *many* disappointments will understand the pleasure I feel in my pair of young Violet Doves. The old birds had failed over and over again to rear any young ones until at last I felt so disheartened that whenever I saw my Violets nesting I determined not to hope nor to expect any success.

I obtained my first pair of these Doves in October, 1901, at a cost of 25/- the pair, and I believe the gentleman from whom I got them had double that sum offered him for them after he had sold them to me. I have never seen this Dove offered for sale by a bird dealer, and the few specimens I have heard of in this country have been imported through private enterprise. I believe my hen is now the only hen left in England, unless one of my young birds proves to be the same sex. Even in their own country, the West Indies, these Doves are not common.

In colouring, the Violet Dove is very lovely. It is stoutly built, but very shapely. In size, about the same size as a Bleeding-heart Dove.

* The name "Violet Dove" is more properly applied to *Geotrygon violacea* than to the present species.—ED.

The back is olive brown; the throat, breast, and underparts pure white; the front of the head greyish; the neck so metallic as to look almost phosphorescent; the feet and legs crimson; eyes bright and very expressive; the shoulder-butts (as in No. 3 photograph of the old cock) pure white; on each side of the top part of the breast a large patch of maroon, shading in a most exquisite way, into the white breast.

When the cock Violet Dove is cooing to the hen is the time to see his gorgeous neck at its full beauty, for he puffs out his feathers and bows very low, with his beak almost touching the ground, thus showing the brightest part of his plumage to the best advantage. The Bleeding-heart Dove, on the contrary, throws himself back to show off the blood red patch on his breast. The hen Violet Dove is rather smaller than the cock, and her neck is less metallic. These Doves are very lightly feathered, and the least touch will bring out their soft plumage.

And now having told you what my Violet Doves are like, I must continue their story. The first pair of birds I had could not fly, each one having a slightly drooping wing. One of them broke its leg sometime later, I think through catching a claw in some way, and after lingering a few days it died. I wrote to my friend to see if he could replace it, and found he had several Violet Doves left from another importation, and in March, 1902, I procured from him a cock bird.

This last Dove was a particularly large and lovely specimen and had been hand-reared by the natives. To my great disappointment he would not take to my other bird, perhaps because she could not fly, and to my alarm the new-comer began to pine away. I bitterly regretted I had not procured his original mate, and wrote to see if it was still possible to get her, but found she had been already sold with the rest of the Violet Doves to a lady in Germany. The next month, however, my friend received one odd bird, the only one living out of a large consignment, all the remaining birds having died, owing to neglect and delay in their delivery after landing in England. I thankfully accepted the offer of this one bird, though I did not know its sex, and my friend warned me it was in terrible plumage, though healthy.

This poor little Violet Dove had evidently suffered much from the attacks of its companions on the voyage, for it was literally almost featherless, and when I drew it out of the basket it felt more flesh and bone than anything else. I have only once seen a bird in worse plumage. Fortunately it was very strong and healthy, and with care and quiet its feathers soon grew again, though it was a little time before I could introduce the new-comer to my cock.

The latter was looking very lonely. He would spend most of his time sitting on a perch, his feet hidden in his feathers, and his beak buried in his breast, giving utterance now and then to a plaintive *hoo, hoo, hoo, HOO*, and then relapsing into dejection again.

Very fortunately the last Violet Dove turned out to be a hen; and the joy of "Narcissus," (as we had nick-named the cock,) when "Bessie" was put into his aviary was very great, and he at once began cooing and bowing to the ground.

I pass over an account of my Violet Doves' failures in 1902. Nest after nest was made and fertile eggs laid with no success: every time my hopes were defeated.

This year the Violets began nesting so early that, by the middle of February, I was obliged to tie them up a nest basket (the nests had been removed during the winter) as one or two eggs had been already laid and broken. It was either a choice of doing this or separating the birds, and the latter course I did not care to adopt as they were so devoted to each other. The Doves sat well, and I began to hope for success, but was very disappointed one day to find a gnawed and broken egg on the aviary floor. The egg was very large and full in shape, and of course, like most Doves' eggs, pure white.

At first I thought I would take the Violets out and put them into another aviary, but I suspected they might possibly have a second egg, as they refused to leave the nest. It turned out that this surmise was right. The birds continued to sit steadily, both being generally on the nest together, for they were so devoted to each other they would not keep apart. On March 4th both birds were off the nest, and on looking in it I found a

broken egg with a strong and healthy young one dead inside just due to hatch. The shell looked gnawed in the same way as the first egg, and a part of it was missing.

Again the Violets nested, this time in a Parrots' wooden nesting box. One egg got broken, and the other shared the same fate when just due to hatch. I thought the Doves might be the culprits themselves, but one day the real offender was caught in the very act. On April 24th the hen Violet laid an egg on a shelf that runs along the front of the aviary, and a tiny Combason was discovered pecking the egg and driving away a second bird that tried to do the same. On examining this egg I found it had been gnawed in just the same way as the other eggs had been.

I decided at once to take the Violet Doves away and put them into another aviary; they are very steady birds and did not much mind being caught, and settled down well in their new home.

In this aviary were a pair each of Half-collared Turtles and Necklace Doves, several Picui Doves, a Shamah, and a Half-moon Parrakeet. Two days after the Violets were moved they took to a fresh nest. I put up an especially large wicker one, so that both birds could sit in it at once without fear of the eggs being rolled out.

Again two eggs were laid, and again I had to record a failure. One egg was found broken on the floor containing a fine young bird, and on May 14th, four days later, a second beautiful young one was found dead (if I remember rightly) *in* the nest. I could only conclude the old birds had smothered it through sitting on the nest together, and for this there seemed no remedy, though we tried putting the odd bird in the next aviary, where the pair could see her.

The Violets were very undaunted, for in less than a week they were nesting again. This time the birds were at last successful. In the second week in June the young Violet Doves were hatched, and though the parents guarded them very closely, yet I could tell the young were alive as I saw them, through the wicker work of the nest, moving inside it. As a general rule, if there are two young Doves in a nest they are

cock and hen, and the former is the first out of the nest. This may be taken as a general guide, though of course there are exceptional cases. On June 24th the first young Violet Dove ventured out of the nest. It must have been then at least a fortnight old. The parents were in a great state of excitement, and while "Narcissus" was left to guard the little daughter, "Bessie" took the small son into her sole charge. She was intensely proud of him, and, though really a quiet and good-tempered bird, in her anxiety over the young one she became very irritable towards the other birds in the aviary.

You may imagine my pleasure in handling at last a living baby Violet Dove. I had been away from home and only returned the day after the young bird had left the nest. I found it very snug and happy in a very large (lidless) box, on a bed of hay. My brother had very thoughtfully put it in this place of safety, and the little thing looked quite at home there. I know, to my cost, the risks that young birds run when just out of the nest and unprotected in an aviary. They may be drowned in baths of water, or they may be plucked and half killed by some other bird. Sometimes, if different pairs of Doves quarrel, they will torment each others' youngones—and perhaps even kill them.

(To be continued).

DOVES EATING INSECTS AND WORMS.

By A. G. BUTLER, Ph.D.

I believe it is not generally known, and certainly it was a new fact to me, that Doves are not exclusively vegetarians.*

In August 1902 Mr. T. L. Bonstow, a gentleman from South Africa who was visiting England to complete his education as an engineer, wrote to me under cover as follows:—

"DEAR SIR,—I am pleased to be able to inform you that I have brought from the Cape Colony a pair of Tambourine Pigeons and a hen Bronze-wing Pigeon (*Chalcopelia afra*)† with which I intend to present you; will you kindly give me your address so that I can arrange to let you have them, that is if you care to accept them: I should like to see you."

* Domesticated Pigeons are, however, said to be fond of curry.—A. G. B.

† We know it as the Emerald Dove.—A. G. B.

Naturally I cared very much, and shortly afterwards Mr. Bonstow brought the birds to my house, and I turned them into one of my bird-room aviaries.

At first the male Tambourine Dove neglected his wife; but ardently courted the Emerald Dove, pairing with her though without result; I therefore removed her to another aviary. Shortly afterwards the male bird made overtures to his own hen, but she invariably scurried away at his approach; nevertheless she dropped several cream-coloured eggs from a branch, of course smashing them.

I now hung up a sponge-basket near the ceiling, partly filled it up with one of Mr. Abrahams' plaited Doves' nests, and supplied twigs and hay, with which the Tambourine Doves formed a little natural nest on the top of the other. Unfortunately the slope of the basket and the fact that the doves had nearly filled the remaining space, made it possible for the eggs to be knocked out on to the floor and smashed.

I next substituted a little upright wicker basket (the lid of which I had replaced by wire hooks to enable me to suspend it) removing the natural nest to it. The doves took readily to the new receptacle, two eggs were laid, and the birds took turns to sit for twenty-six days, but without result.

It was while this fruitless incubation was proceeding that I first saw the hen on the floor of the aviary, breaking up and swallowing a cockroach. When she had finished this strange meal, I went and got her a mealworm, which she hurried to seize, with the same eagerness that a purely insectivorous bird would show.

Shortly afterwards these doves went to nest again, sitting steadily for seventeen days, but again without hatching; and, during the incubation, the hen devoured mealworms whenever I threw them to her; and doubtless such small cockroaches as strayed into the aviary, although I did not catch her in the act.

Mr. Seth-Smith having told me that, in his opinion, I should do no good in breeding doves, until I built an aviary in the garden, enclosing growing trees; I set a carpenter to work

and put one up (length 22 feet, width 9 feet 6 inches, height at ridge 14 feet) enclosing two trees reaching to the centre of the roof, one or two young trees, a lot of ferns and other plants, to which I added some creepers: trees, bushes, and creepers surround the aviary on three sides.

When the aviary was completed, the Tambourines had just started sitting the third time: I therefore turned out a pair of the Australian Green-winged Dove (*Chalcophaps chrysochlora*), but unfortunately discovered that the hen had lost the use of her wings during her moult, so that she found it difficult even to reach the lower branches of a fir-tree in the aviary, and spent nearly the whole of her time on the ground. One day, as I was watching her, I saw her seize a worm which had crawled on to the path, shake it to pieces, and swallow each fragment as it was disconnected, until the whole had been devoured.

Since then I have introduced the Tambourine Doves to the same aviary: they agree perfectly with the Green-wings; but they are too pleased to be able to fly freely in the open air, to trouble about breeding.

Miss Alderson, who has had more experience in dove-breeding than most of our members, may perhaps be able to tell us whether it is the hens alone of the *Columbæ* which feed upon insects and worms; and whether they have this peculiarity only in the season when they are either breeding, or ready to breed.*

Although I have not noticed the habit in other species, I should think it hardly likely that it was limited to the Bronze-wings and their allies: perhaps however it may be a peculiarity of those doves which pass a good deal of their time on the earth, unlike the so-called Ground-doves, which as a rule only come down to feed. Such birds as *Phlogænas* and *Guira* ought strictly to be called Ground-pigeons, not *Zenaida* and *Leptoptila* which spend nearly all their time among branches.

* We have seen a male Bronze-winged Pigeon (*Phaps chalcoptera*) swallow large earthworms; and the Bleeding-heart Dove (*Phlogænas luzonica*) readily devours meal-worms.—Ed.

REEVE (*Pavoncella pugnax*) BREEDING IN
CONFINEMENT.

By W. H. ST. QUINTIN, F.Z.S.

A Reeve, one of two, which with a Ruff inhabits one of my aviaries, where they have been for some four years, has reared three young this summer. This Reeve has more than once previously nested, but her eggs have always been disturbed by other occupants of the aviary; though last year one young one was hatched, but it never completely freed itself from the shell, and soon died. The Reeve forsook her first clutch this spring, having been interfered with, as we thought, by some inquisitive Nutcrackers. But by the time she laid again the grass was well grown up, and the nest escaped notice. Seeing that the bird was sitting very steadily I removed most of the other birds, including a Landrail and some Stonecurlews, which I thought might be dangerous companions.

The young were hatched on June 25th, and at once left the nest. There was at this time a great deal of cover, including rank grass, in the aviary, and it was not easy to see the young, especially as the mother always kept repeating the alarm note when one was near; but by patiently watching, especially in the evenings, they could sometimes be seen climbing about the tussocks and bunches of grass, often several inches off the ground, picking off flies and minute insects; while the parent kept guard, driving off any other bird that came too near, including the Ruff, who met with no more consideration than the others.

Though the foodpans were kept well supplied, we could not see that at that time they were ever visited by the young birds, though the parent fed freely from them. There is no doubt that the little ones supported themselves entirely on what insects they picked up, without any assistance or guidance from the old bird.

Until they became fledged, the young crept about, and squatted so closely, that we had to use the greatest caution in moving about in the aviary. As soon as they were fledged (they

could fly on July 15th), they ceased to squat, and began to run off when disturbed, and took no pains to hide themselves.

They are now (August 24th) as perfect as wild birds, and seem of the same size as the mother, so I fear they are all females. If one or more had been a Ruff, it would have been interesting to notice whether later on they would at all have resembled their male parent, who each spring assumes a handsome black and chestnut nuptial dress.

Although I am aware that the Reeve has occasionally laid in aviaries, this is the first time, so far as I know, that young of this species have been reared in confinement in this country.

REVIEW.

BRITISH BIRDS' EGGS.*

The beautifully-illustrated work published by Messrs. Brumby and Clarke some few years ago under the title of *British Birds with their nests and eggs* hardly met with the amount of support it deserved from the hands of British ornithologists. It is true that of the making of books on British birds there is no end, but this work was unique in that the different species were admirably figured *with their nests*, and a most beautiful series of coloured plates of the eggs of every species was also given, all the illustrations being by Mr. Frohawk. Another point, in our opinion in favour of the work, was that it was not the production of one man only, but the various families were separately treated by authorities who were especially capable of dealing with them.

Perhaps the most useful part of the work above referred to consisted of the full and concise notes on the nests and eggs, together with the unequalled series of plates of not only the typical eggs, but also of the numerous varieties.

It is satisfactory to find that the Publishers have been persuaded to re-issue the magnificent series of coloured plates

* *Birds' Eggs of the British Isles.* Collated by ARTHUR G. BUTLER, Ph.D., F.L.S., F.Z.S., etc. Illustrated by F. W. FROHAWK, M.B.O.U., F.E.S. (Brumby & Clarke, Limited, Hull and London).

and that portion of the letterpress which refers to the nests and eggs of the different species of British birds. The whole forms a handsome, compact, and convenient book of reference to the nesting habits and identification of the eggs of British birds, and should receive great support from ornithologists generally. Those who are specially interested in nests and eggs will hardly be able to do without it: the plates alone are very cheap at the price asked for the whole book.

CORRESPONDENCE, NOTES, ETC.

BREEDING SERIN-FINCHES.

SIR,—*Re* colour of eggs of the Green Singing Finch. I see in the August number, Dr. Butler calls attention to the variability of the colouring.

At the time my Serin Finches were nesting, Zebra Finches were the only other birds that I had put up for breeding, and as far as I can recollect the eggs were the same colour as those of the Chestnut-eared Finch. Had they differed in marking it would have attracted my attention, for at that time these were the only birds that I had tried my 'prentice hand on. I had no idea that they were difficult to get to breed—had not long taken up Foreign Birds—had no Bird Book—used to saw away one-quarter of a cocoa nut shell, ram in part of a cow hair and moss nest, wire it into a canary breeding cage, and the birds took to it with very little altering, and reared a family.

But this is going away from the subject, and I can look back twenty years, and go over again the pride I felt when I first saw the youngsters in the nest. It was in exactly six weeks that a precocious 'mother's darling' made his or her first appearance before the public, and sang so sweet a song. It is only those devoted lovers of birds that can understand what my feelings were, when I first heard those beautiful notes.

I fear, Mr. Editor, in my enthusiasm I have got off the track, and must crave your indulgence and pardon.

W. T. CATLEUGH.

RARE AFRICAN WAXBILLS.

SIR,—Will you kindly tell me if Violet-eared Waxbills have a winter and summer plumage. A month ago I received two males and one female; one male had a chocolate coloured breast, the breast of the other male was in patches of chocolate and dull buff—he does not look like a young bird.

Since receiving the birds most of the buff feathers have been moulted and chocolate coloured ones have grown. The song resembles that of the Cordon Bleu, but is longer, and instead of being shrill is very sweet; in fact, it is almost exactly like that of the Blue Waxbill (*Estrilda angolensis*) which I also have. Both male and female Violet-eared Waxbills sing, but the song of the female is weak. When singing both sexes hold a straw in the beak and dance sideways in jumps down the perch. At the same time I received a pair of Red-faced Finches (*Pytelia afra*), and a young bird supposed to be of the same kind (it does not look quite the same). The adult Red-faced Finch does not sing at present, but the attempts of the young bird to sing are like those of a young Canary, and some notes are quite loud and not in the least like those of Waxbills. Can you tell me what *Pytelia melba* is like? I am giving all these birds a few fresh ants' eggs every day. Do you consider these too fattening?

A male Avadavat and a male Silverbill, which we have had for five years, are inseparable companions; this year they have made a nest in which they sleep, and at present they are taking turns in sitting on one egg which was laid in their nest by a Gouldian Finch.

R. S. VIVIAN.

The following reply has been sent to Mrs. Vivian:

Although Holub says (see *Foreign Finches in Captivity*, new ed., p. 123) that the Violet-eared Waxbill resembles the Weavers and Whydahs in its change of plumage, it struck me that he might have been misled by seeing the change from the young into the adult plumage: therefore, knowing that Mr. Phillipps had a male of this species, I wrote to him. He replied: "I obtained an adult male Violet-eared Waxbill on the 26th May, 1902; it is still with me and in faultless condition.

"I have never noticed any seasonal change of plumage, nor anything that would lead me to suppose that one exists.

"Mrs. Vivian's bird was probably moulting from the immature to the adult plumage."

The only Waxbill which, to my knowledge, exhibits seasonal changes of plumage is the Amaduvade.

Zonogastris melba is altogether a duller coloured bird than *Pytelia afra**; the back more olive-tinted, the crimson parts duller, the grey of the head darker, more slaty, and extending over the ear-coverts (which are crimson in *P. afra*); the breast spotted with white and barred with black and white; in *P. afra* it is simply barred with white which, in that species, continues on to the abdomen, whereas *Z. melba* has the abdomen white.

A. G. BUTLER.

* The scarlet face, and spotted and barred under-parts of *Zonogastris melba* certainly give it the appearance of a more brightly coloured bird than *Pytelia afra*.—ED.

FLAMINGOES.

The following letter was forwarded to Mrs. Gregory in reply to an inquiry:

I think you might safely embark in Flamingoes, and that you would be pleased with them. But I would not recommend them to anyone who has not a pond, or bit of shallow water, in which they can stand all day, for that is their habit. In cold weather they might be walked into a shed for the night, and in the case of frost and snow that would be *necessary*, for they are very helpless, and slip about most uncomfortably upon ice. I do not think that they are at all affected by cold, except that they are unhappy if they are compelled to stand upon ice, or slippery snow. (It is not at all what one would expect, but this is my experience, and I have heard the same from others who have kept these birds.)

They will thrive upon grain of all kinds, maize, oats, barley, wheat, but the last is their favourite.

I have given shrimps, as is done in the Zoological Gardens, but I do not find it necessary. My six birds have not had any shrimps for over a year. The best way to feed Flamingoes is to place their grain in a pail of water, and to mount the pail up so that ducks or other birds cannot rob them. Leave the grain in as long as possible to soften.

I think you will find peat moss litter better than straw to lay on the floor of the shed. It is absorbent, and a deodorizer. The Flamingoes should have something soft (like the moss litter) to stand on when they are not in the water.

They are most inoffensive birds, and not at all noisy, only occasionally making a croaking noise if squabbling over their food, etc.

W. H. ST. QUINTIN.

FRESH ANTS' EGGS.

SIR,—In Germany, fresh ants' eggs are easily obtained at all the markets held in the larger towns. While lately on the Continent, I made arrangements with a seed merchant to send me, once a week, 250 grammes (including the box), for which I am charged 6d. and postage 3d. I think he gets them from the country twice a week.

The address is:—

Herr Friedrich Gieler,
Samenhändler,
Würzburg, Bayern (Bavaria).

F. MOERSCHELL.

MYNAH AND COCKATOO.

SIR,—I should be much obliged if you could give me some advice about a Greater Hill Mynah (Indian). He eats well and his plumage is fairly good, but one toe of each foot is very much inflamed and very tender. I have had the bird three years, during which time his feet have never been right though I have never known them quite as bad as they are now. I have bathed them in hot milk and put on tincture of myrrh without success. Could you tell me of any lotion I might apply? The bird is fed on boiled rice, potato, currants and carrots, and I am most careful to see that the perch is kept dry and clean.

I should also like to know the name of any good Parrot food for a small Australian Yellow-crested Cockatoo.

E. KIRKWOOD.

The following reply has been sent to Mrs. Kirkwood.

I think it quite possible that the inflamed condition of the Mynah's feet is due to incorrect feeding.

I have, at various times, kept the Greater Hill Mynah, the Common Mynah, the Malabar, and the Crested Mynah, the last being still in good health. I have come to the conclusion that these birds should be fed upon 'Century Food' or its equivalent; grapes, oranges, or pears; insects, but especially cockroaches or grasshoppers; and a very little raw meat once a week: on this food they do splendidly.

I should nevertheless recommend you to bathe the bird's feet in fairly hot water and afterwards in a weak solution of chloride of zinc: this should be done at least twice a day until the bird recovers.

As regards your question about a good general "Parrot Food"; the thing is a hopeless impossibility, and nobody who knew anything about parrots and had their interests at heart would have the effrontery to put such a thing on the market.

Cockatoos do well on a mixture of maize, oats, wheat, dari, hemp, nuts, fruit, raw carrot, plain dry biscuit; pure water only to drink.

A. G. BUTLER.

AN INTERESTING HYBRID.

SIR,—In a letter received from La Contessa Baldelli dated August 17th is the following account of a nest of hybrids produced between the recently imported Waxbill *Estrilda rhodopyga* and *Estrilda cinerea*, which will certainly be interesting to all breeders of foreign finches:—

"The very day I posted my last to you, as we went into the birdroom for the 'good night' visit, that is before dusk, we saw a tiny mite standing

near the seed pan. It looked like a large blue-bottle fly and we could not imagine what it was. It was not a little Fire-finch, nor a Bib-finch. It was too small for a Cordon Bleu.

"We tried to find the nest it had tumbled from, but in vain; so I placed it on some cotton wool and left it, hoping its parents would look after it. It was still alive but cold and miserable the next morning. I warmed it and tried to give it a drop of milk, but it would not open its beak and it lingered on till the afternoon and then died.

"That same afternoon I saw another little mite hopping and chirping, but I then succeeded in finding its nest where an egg and another nestling were snugly hidden. I put it back and it stopped there for the night. Next morning the two nestlings were on the ground again and I found it no use to replace them in the nest, for they only tumbled out again, so I put them in a quiet corner and after a while the parents went to look at them.

"The parents are a cock *rhodopyga* and a hen grey astrild. The nestlings have a rusty red band across the wing, white gapes, and though the beak is small there is a great length from the scalp to the beak. They wag their tiny tails and are now beginning to fly. The feathers are not fluffy but rather oily which retards their flight.

"The egg is white and small. The nest is built of grass neatly woven into a large ball, over which other equally large balls are placed: perhaps several pairs take apartments in the same house? They do not build in bushes, but on the ground in a corner; and if possible behind a bush, or a broom, or any hiding place. This particular nest was built on a shelf under some heather and leaning on a nest-box. I hope the young birds will live, and wonder if they will have black beaks like the father or red ones like their mother. The little mother has her breast nearly bare of feathers, whether from sitting or from pluming herself to garnish her nest I do not know.

"I thought this report might interest you and perhaps it would interest Mr. Phillipps. I have found a dead nestling of unknown derivation and a fine black egg of the size almost of the paddy bird's and don't know where they came from, unless it belongs to the *Passer luteus*."

I felt sure Mr. Phillipps would agree with me that it would be selfish to keep these breeding-notes to ourselves, for I am satisfied that they will be equally interesting to others.

A. G. BUTLER.

NESTING NOTES.

SIR,—My Bib-finches have nested and have brought up three young ones. They had no bib at first, but now they are not distinguishable from their parents. My little Amaranth finches have also successfully brought

up three young ones, one cock and two hens. The white Paddy birds have brought up seven young ones, six white and one grey. The Grey Singing Finch has paired with a hen Canary. The young ones are grey and yellow and look like speckled Canaries. Two years ago I had five hybrids from a Bronzed Mannikin and a fawn and white Bengali. The hybrids have paired with the Bengali and the offspring are brown and white, but the brown parts are spotted with white like the breast of the Spice-bird.

G. TOMMASI BALDELLI.

THE REV. C. D. FARRAR'S RECORD.

SIR,—As most of your readers probably know, I was reluctantly forced to give up my birds last year, owing to a serious breakdown.

I should like to place on permanent record a list of birds I was successful in *rearing* during those seven years; also of others I got to nest and lay eggs. I fancy that the list has never been beaten by one individual.

I. BIRDS I HAVE REARED :

Virginian Cardinals	Barrabands*
Green Cardinals	Firefinches*
Common Avadavats	Shamas
Cutthroats	Dhyals
Silver Bills	Zebra Finches
Blue Robins	Mocking Birds
Bib Finches	Black-headed Mynahs*
Indigo Finches*	Andaman Starlings*
Nonpareils*	Catbird*
Turquoisines	Pekin Robins
Many-colors*	Rufous-tailed Grassfinches
Redrumps	Chinese Quails.

2. EGGS FROM :

Brown's Parrakeets	African Bush Quails
Green Avadavats	Indian Jungle Quails
Zebra Waxbills	Frankolins.
Bichenos	

C. D. FARRAR.

THE BLACK-BREASTED OR RAIN QUAIL.

SIR,—I am sending you a few notes to supplement Mr. L. M. Seth-Smith's interesting account of the breeding of the Black-breasted Quail in captivity.

My pair were turned into an outdoor aviary the end of April last; towards the end of May I noticed a slight scratching in a corner of the

* Medal of the Society.

aviary lined with a few grass stalks; an egg was laid on June 2nd, and one on each of the six succeeding days when the hen commenced to sit, hatching out six young; these seemed going on well, but the hen spent half her time watching and chasing away the cock bird; on the morning of the fifth day I found the hen alone and the six young dead in different parts of the aviary.

On July 12th, I noticed another nest close by the old one and on the 16th an egg was laid, the hen laying eight altogether, after which I removed the cock bird. The hen sat splendidly and hatched eight young; these, with the exception of a weakly one, which died during very stormy weather, are now (September 3rd) strong healthy birds—a little smaller than the hen—the black feathers are showing in the throats of the cock birds. The period of incubation was eighteen days in each case.

I have not the least doubt in my own mind that this bird is a polygamous species, and that the young of the first clutch were either killed by the cock or the hen was driven off from brooding the young at night and they perished from cold. I should imagine Mr. Seth-Smith's perished in the same way.

GEO. C. SWAILES.

THE RACKET-TAILED PARROT.

In the few notes written to accompany the coloured plate of *Prioniturus platurus* in the Magazine last month, I mentioned that I had been informed that a member of this Society was privately importing some Racket-tails from the Philippines, but I added a footnote to the effect that all had died on the voyage. I am, however, very glad to find that I was misinformed on the latter point and that Mrs. Johnstone, the member referred to, has one Racket-tailed Parrot alive at the present time, which proves to be a specimen of *P. discurus*, a species which is most probably absolutely unknown in this country in a living state.

D. SETH-SMITH.

THE SOCIETY'S MEDAL.

Two Demoiselle Cranes, *Anthropoides virgo*, and three young of the Ruff and Reeve, *Pavonella pugnax*, have been bred and fully reared by Mr. St. Quintin.

Two White-fronted Doves, *Leptoptila jamaicensis*, have been bred and fully reared by Miss R. Alderson.

Accounts of the several cases are now published.

It is believed that these three species have now been fully reared for

the first time in the United Kingdom, and it is proposed to award a Medal in each case accordingly. Should any previous instance of the successful breeding of either species be known to any of our members or readers, it is requested that they will kindly communicate at once with the Hon. Business Secretary. Two White-fronted Doves have since been bred by Mr. Castle Sloane.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case. Domestic poultry, pigeons, and Canaries cannot be dealt with. No replies can be sent by post.

PENNANT PARRAKEET. (Mr. Rudkin). [Bird died of apoplexy. Your feeding seems very fattening to my mind. The hemp, sunflower and nuts all contain a large quantity of oil, and if you give them alternately as a change this would be quite sufficient. You do not mention green food. They should certainly have some. It was a hen].

AVADAVAT. (The Hon. Mrs. Carpenter). [Concussion of the brain caused death. The point of beak had evidently been brought in contact with some hard object].

GOLDFINCH. (Mrs. Robertson). [Bird died of enteritis. This is very common in grey-pates during the process of seeding off, and is usually due to the indigestible food (dried seeds) being substituted for the natural succulent seeds, and possibly a moderate amount of fruit and insects].

BRONZE MANNIKIN. (Miss Appleton). [Death was due to an apoplectic fit. It was a hen].

FIRE-FINCH. (Miss Thomas). [Acute inflammation of liver caused death. Am unable to say cause of death of the hen, but there are no traces of infectious disease in bird sent me].

BICHENO FINCH (nestling). (Mr. N. S. O'Reilly). The nest was in a bush, not under cover. [Pneumonia was cause of death, in all probability produced by wet and cold weather].

DOVE. (The Hon. Mrs. Hodgson). [Cerebral hæmorrhage caused death by pressure on the brain. Possibly caused by fright].

RED-FACED FINCH. (Mrs. Robertson). [The bird died of enteritis which has no appearance of being the contagious form. The featherless condition is possibly caused by some one or more of its companions pecking at the feathers. The best way is to watch and remove the offender or offenders. Many of the small finches acquire this habit when caged, and if they were turned into a large aviary would, in all probability, soon feather].

GREY SINGING-FINCH. (Mr. Simpson). [Concussion of brain was the cause of death, but I should scarcely think the injury was caused by a bird, as too large a surface of the cranial cavity was involved. It was a hen].

ORANGE-CHEEKED WAXBILL. (Miss Shepherd). [Acute inflammation of liver and jaundice. It is not infectious].

ARTHUR GILL

SPECIAL NOTICE.


THE ELECTION FOR THE COUNCIL.

The following Members of the expiring Council stand for re-election:—

Miss R. Alderson, Mr. Bonhote, Mr. O. E. Cresswell, Rev. C. D. Farrar, Mr. Gill, Mr. Humphrys, Mr. Meade-Waldo, Mr. Page, and Mr. Sergeant.

The following Candidates have been duly proposed and seconded:—

<i>Candidate</i>	<i>Proposed by</i>	<i>Seconded by</i>
Mrs. Anningson	.. Mr. Camps	.. Mr. Mumford.
Rev. F. L. Blathwayt	.. Miss E. E. West	.. Mr. R. Phillipps.
Dr. W. G. Creswell	.. Mr. Swan	.. Hon. W. B. Wrottesley.
Mr. Farnborough	.. Mr. D. Seth-Smith	.. Mr. Bonhote.
Mr. Frank Finn	.. Mr. R. Phillipps	.. Mr. D. Seth-Smith.
Mr. Newman	.. Mr. D. Seth-Smith	.. Dr. Butler.
Mr. Scherren	.. Mr. R. Phillipps	.. Mr. Bonhote.
Capt. Shelley	.. Dr. Butler	.. Mr. D. Seth-Smith.
Mr. Thomasset	.. Mr. D. Seth-Smith	.. Mr. R. Phillipps.
Mr. Workman	.. Mr. D. Seth-Smith	.. Dr. Butler.

 A Voting Paper is forwarded herewith. This Paper *must be signed* by the Voter, and sent to the Scrutineer, H. W. MATHIAS, Esq., Doone Cottage, Thames Ditton, Surrey, in a sealed envelope, so as to reach him *not later* than the 16th of October. See page 314 of the July number.

INDEX TO SUBJECTS.

	PAGE		PAGE
<i>Acanthis fringillinervis</i> ...	215	<i>Anas boschas</i> ...	185
<i>Acanthorhynchus tenuirostris</i> ...	345	<i>porphyrochrysa</i> ...	184
Accentor, Alpine ...	373	<i>supercilliosa</i> ...	184
" Black-throated ...	145	<i>Anastomus oscitans</i> ...	144
" Rufous-breasted ...	145	Andaman Parrakeet, Large ...	145
<i>Accentor atricularis</i> ...	145	" Starling ...	181, 407
<i>strophiatius</i> ...	145	" Teal ...	183
<i>Accipiter nisus</i> ...	293	<i>angelensis, Estrilda</i> ...	120, 121, 179, 403
<i>Acrocephalus stenturus</i> ...	215	Ami ...	22
<i>Ægialitis hiaticola</i> ...	128	<i>ani, Crotaphaga</i> ...	22
<i>Ægithia picta</i> ...	110	Annual Meeting of the Council ...	311
<i>temporalis</i> ...	82	<i>annulosa, Stictoptera</i> ...	179
<i>Ægithina tiphia</i> ...	205	<i>anastacea, Sterna</i> ...	93
<i>ænea, var. chalybura Carpophaga</i> ...	vii.	<i>Anseranas</i> ...	104
<i>æneus, Lampiornis</i> ...	171	<i>Anthocheria carunculata</i> ...	110
<i>affinis, Ceracias</i> ...	144	<i>Anthracoceros corvexus</i> ...	177
" <i>Penelopides</i> ...	viii.	<i>Anthropoides paradisea</i> ...	113
<i>afra, Chalcopeia</i> ...	397	" <i>vingo</i> ...	399
<i>Pytelia</i> ...	179, 403	Ants' Eggs, Fresh ...	404
African Bush Quail ...	407	<i>apoda, Paradisea</i> ...	210
" Finches ...	41	<i>Aptenodytes pennanti</i> ...	112
" Sparrows, etc. ...	305	<i>Apteryx</i> ...	101
" Waxbills ...	41, 249	" <i>mantelli</i> ...	150
<i>Agapornis</i> ...	281	" <i>erweni</i> ...	150
<i>roseicollis</i> ...	178, 183	Apteryx, Mantell's ...	150
<i>Agelæus phœniceus</i> ...	90	<i>Ara macao</i> ...	145
<i>agilis, Chrysotis</i> ...	185	" <i>militaris</i> ...	145
<i>alba, Ciconia</i> ...	183	Arabian Golden Sparrow ...	360
Albatross ...	107	Aracari, Lettered ...	32, 33, 75
<i>albicinctus, Turdus</i> ...	145	<i>Arachnechthra zeylonica</i> ...	180, 183
<i>albigularis, Petronia</i> ...	297	<i>arbores, Dendrocygna</i> ...	62
" <i>Querquedula</i> ...	183	<i>Arboricola rufigularis</i> ...	145
<i>albus, Eudocimus</i> ...	111, 184, 210	<i>arctica, Fratercula</i> ...	120
<i>aleyon, Ceryle</i> ...	61	Arctic Skua ...	302
<i>alexandree, Polytelis</i> ...	277	" Tern ...	127, 128, 302
<i>Spathopterus</i> ...	147	<i>Ardea bahamensis</i> ...	57
Alexandrine Rock Parrakeet ...	333	" <i>cyanostris</i> ...	58
All-green Parrakeet ...	299	" <i>herodias</i> ...	58
" Parrot, The ...	185	" <i>rufa</i> ...	57
Alpine Accentor ...	373	" <i>tricolor</i> ...	58
" Chough ...	254	<i>Ardea grayi</i> ...	183
Amaduvade ...	403	<i>argentatus, Larus</i> ...	111, 126, 184, 210
" Indian ...	77	<i>argentatus, Mesia</i> ...	144, 181, 379
" Waxbill ...	224	<i>Argus giganteus</i> ...	210
" " Common ...	304	Argus Pheasant ...	210
" " Green ...	304	<i>Argya carlii</i> ...	215
<i>amadava, Estrilda</i> ...	175	Ariel Toucan ...	32
<i>Amadina erythrocephala</i> ...	192	<i>arnaudi, Nigrita</i> ...	303, 305
Amaranth Finch ...	406	" <i>Philaterus</i> ...	303
<i>Amanresthes fringilloides</i> ...	213	<i>Artamus fuscus</i> ...	215
Amazon ...	187	Ashy-crowned Finch Lark ...	110
" August ...	145	" Wood-Swallow ...	215
" Blue-fronted ...	103, 280	Asiatic Cuckoos ...	173
" Bouquet's ...	110, 111	" White Crane ...	195
" Cuban ...	103	<i>ater, Dromæus</i> ...	242
" Guilding's ...	145	<i>Athene noctua</i> ...	281
" Salvini's ...	40	<i>atratus, Cygnus</i> ...	210
" Tricolour ...	103	<i>atricapilla, Munia</i> ...	179
" Yellow-fronted ...	40	<i>atrigrularis, Accentor</i> ...	145
" -naped ...	76	" <i>Turdus</i> ...	109
<i>Amblyramphus holosericeus</i> ...	181	<i>auduboni, Puffinus</i> ...	94
American Cat-bird ...	82, 102	August Amazon ...	145
" Coot ...	62	<i>augusta, Chrysotis</i> ...	145
" Nonpareil ...	149	Auk, Little ...	302
" Pochard ...	215	<i>aurantiacus, Casuaris</i> ...	216
<i>americana, Fuligula</i> ...	62, 215	<i>aurantius, Brachypternus</i> ...	145
Amherst and Golden Pheasants ...	374	<i>auratus, Lampiornis</i> ...	171
" Golden Pheasant ...	194	<i>auriceps, Cyanoramphus</i> ...	301
" Pheasant ...	374, 375	<i>auricomus, Ptilotis</i> ...	349
<i>Ampelis cedrorum</i> ...	350	<i>aurifrons, Chloropsis</i> ...	73, 180, 184
" <i>garrula</i> ...	357, 365, 366	Anrita Dove ...	108
" <i>japonicus</i> ...	360	<i>avifa, Zenaida</i> ...	108, 184

	PAGE		PAGE
<i>auritus</i> , <i>Turtur</i>	241	Bib-finch	102, 406, 407
Aurora-finch	179, 249, 281	Bichenov's Finch	225, 407, 409
<i>australasiana</i> , <i>Melinoris</i> ...	352	<i>bichenovii</i> , <i>Stictoptera</i>	179
Australian Cockatoo, Lemon-crested ...	116	<i>bicolor</i> , <i>Calamospiza</i>	183
" Crested Pigeon 108, 109, 150, 151		<i>bimaculata</i> , <i>Melanocorypha</i>	215
" Crimson Finch	102	Bird-catching in India	262
" Finches	77	" of Paradise	169
" Green-winged Dove	399	" " Twelve-wired	169
" Waxbill 43, 44, 45, 82		" On the Topography of a	160
" Wild Duck	184	" Notes	114
" Yellow-crested Cockatoo	405	" " from the Zoological	
Avadavat 77, 157, 175, 223, 407, 409		Gardens, 109, 144, 183, 215	
" Common 82, 407		Birds for outdoor Aviary	78
" Green 46, 82, 344, 377		" in Towns	97
Aviary, Heating, etc., for	71	" observed near Poolewe, N.B.,	
" Notes	375	during April, 1903	302
Aviaries, The Construction and Fit-		Bishop	118
ting of Small	134	Bittern, Tiger	214
Avicultural Society, Rules of	11, 312	Bitterns 162, 202	
Babbler, Common	382	Black-backed Gull, Greater	
" Golden-eyed 83, 84, 85, 86		" " Lesser, 125, 126, 127, 302	
" Jungle	183	" -bellied Sandgrouse	203
" Red-eyed	383	Blackbird, 97, 98, 99, 198, 199, 200, 201,	
" Rufous-necked Scimitar... ..	145	210, 238, 245, 261, 263, 292	
" Slaty-headed	109	Black-breasted or Rain Quail, 366, 377,	
" Striated	215	" Bulbul, Himalayan	209
" Yellow-eyed 83, 383		Blackcap 147, 208, 238, 371, 372	
Babblers	203, 268	Black Cassique	260
Babbling-Thrush	53	" -crested Yellow Bulbul	145
Bahama Birds, Field Notes on some		" Emeu	242
" Duck... ..	19, 54, 87	" Guillemot	302
" Finch	61	" -headed Bunting... ..	180
" King Bird	19	" " Gouldian Finch, 37, 38,	
" Woodstar	22	157, 191, 226, 286	
<i>bahamensis</i> , <i>Ardea</i>	57	" " Gull	302
" <i>Dafila</i>	61	" " Lark	215
" <i>Pitangus</i>	20	" " Mynah	407
Balance Sheet for the year ending		" " Nun	395
October, 1902 154, 155		" " Oriole	vil.
<i>Balaniceps rex</i>	241	" " Sibia, 255, 257, 258, 259,	
Baleaic Crowned Crane... ..	vii.	260, 382	
<i>Balearica pavonina</i> ...vii., 159, 160, 195		" " Weaver-bird	215
" <i>regulorum</i>	viii., 160	" -naped Oriole	vii., 33, 84
Baltimore Oriole	78	" -necked Stilt	91
Banded Parrakeet 254, 285		" " Waxbill	224
Banana-suckers	214	" Redstart	373
Barbary Turtle-Dove 105, 106, 107, 109, 130		" Swan	216
Barbet, Blue	103	" -tailed Parrakeet... ..	vi., 179
" Crimson-breasted	183	" -throated Accentor	145
" Golden-throated	84	" " Bustard-Quail 317, 318	
" Indian Green	145	" " Diver	302
Barbets	268	" " Ouzel	109
Bare-eyed Cockatoo	103	Bleeding-heart Dove, 131, 132, 133,	
Bareilly Flycatcher	184	232, 399	
<i>Barnardius semitorquatus</i>	329	Blood-bird	353
" <i>zonarius</i>	329	Blossom-headed Parrakeet, 187, 224,	
Barnard's Parrakeet 299, 336		225, 299	
Barn Owl 214, 302, 325		Burmese	187
" " Galapagan	215	Blue Barbet " "	103
Barraband's Parrakeet, 103, 147, 301, 407		" -bearded Jay	227, 230
Bar-tailed Godwit 203, 302		" Bird, Indigo	280
<i>Bathilda ruficauda</i>	179	" Bonnet 102, 103, 306	
Bauer's Parrakeet 75, 70		" " Red-vented... ..	329
Bay-backed Shrike	215	" -breasted Waxbill 120, 121, 122, 123	
Bearded Reedling vi., 280		" Chat, Fairy	24
" Seed-eater 147, 374		" -fronted Amazon 103, 280	
Beautiful Parrakeet	31	" -headed Rock Thrush	183
Bee-eater	vi., 164, 214	" " Turtle-Dove	130
" Begordi "	115	" Heron, Great	58
Bell-bird	244	" Jay	230
Belted Kingfisher	61	" Mountain Lorikeet 102, 185	
Bengalee or Bengalese 112, 221, 378		" -Pie	284
Bengal Pitta	29	" " Himalayan	284
" Red-vented Bulbul		" " Chinese	307
<i>bengalensis</i> , <i>Pycnonotus</i>	215	" Robin, 102, 117, 190, 226, 407	
Berthelot's Pipit	215	" Rock Thrush	198
	238	" -shouldered Tanager	102
		" Sugar-bird	180

	PAGE
Blue-throat	191
„ -throated Hanging Parakeet	102
„ „ Warbler	241, 371, 373
„ Thrush	vi., 201, 339, 340
„ Tit	97
„ Teneriffe	239
„ Waxbill	179, 403
„ Whistling-Thrush	144, 196, 197, 200, 201
„ -winged Bulbul	184
„ „ Green-Bulbul	73
„ „ Lovebird	33, 245
„ „ Parakeet	33, 140, 338
„ „ Siva	144, 181, 382
„ Wren	15, 44, 45, 82
Blyth's Hill Partridge	145
„ Nicobar Parakeet	215
Bohemian Waxwing	357, 395
<i>bonariensis</i> , <i>Molothrus</i>	172
Booby	61
<i>boscas</i> , <i>Anas</i>	183
<i>boulboul</i> , <i>Turdus</i>	215
<i>bouqueti</i> , <i>Chrysotis</i>	110, 111
Bouquet's Amazon	110, 111
Bower-bird, satin	63, 64, 190, 285
„ Spotted	64
<i>brachyura</i> , <i>Pitta</i>	29, 215
<i>brachyptera</i> , <i>Sitagra</i>	213
<i>Brachypterus aurantius</i>	145
Brazilian Blue-Grosbeak	253
„ Haugnest	171, 172, 333
„ Sparrow	101, 102
Breeding birds in immature plumage	190
„ Gouldian Finches, etc.	37
„ Rock Peplers and Barraband's Parakeet	336
„ Serin-finches	402
„ the Demoiselle Crane (<i>Anthropoides virgo</i>) in Captivity, On	390
„ Many-coloured Parakeets	342
Bridled Gnatcatcher	302
„ Tern	92, 93
British Bird Notes	37, 79
„ Birds in New Zealand	244
„ Turtle Dove	100
Bronze Fruit Pigeon	vii.
„ Mannikin	225, 226, 409
„ -necked Dove	108
„ -wing Pigeon	397, 399
<i>Brotagerys</i>	140, 307
„ <i>tirica</i>	330
„ <i>virescens</i>	307
Brown-eared Bulbul	85, 86
„ -headed Stork-billed Kingfisher	225
„ Linnets	97
„ Owl	302
„ -throated Conure	146
<i>browni</i> , <i>Platycercus</i>	301
Brown's Parakeet, vii., 81, 101, 117, 277, 301, 407	210
<i>Bubo maculosus</i>	210
<i>Bubulcus coromandus</i>	183
Budgerigar, 29, 46, 82, 102, 148, 157, 178, 194, 224, 225, 226, 281, 286, 316, 344	36, 101, 224
„ Yellow	36, 101, 224
Budgerigars, Curious nesting place of, 29	52, 53, 276, 277
Bulbul	215
„ Bengal Red-vented	145
„ Black-crested Yellow	184
„ Blue-winged	73
„ „ Green-	85, 86
„ Brown-eared	209
„ Coral-billed	73, 184
„ Gold-fronted Green-	73, 258
„ Green	209
„ Himalayan Black	209

	PAGE
Bulbul, Jerdon's Green	144
„ Malabar	184
„ „ Green-	73
„ „ Orange-bellied Green-	73
„ „ White-eared	78
Bulbuls	79, 180
Bullfinch,	97, 219, 252, 316, 370, 377
Bunting, Black-headed	180
„ „ Eastern Meadow	145
„ „ Lark	183
„ „ White-capped	145
„ „ Yellow	135
Buntings	179, 245
Burmese Blossom-head Parakeet	187
„ „ Roller	144
„ „ Slaty-headed Parakeet	110
Burrowing Owl	74, 282, 388
„ „ in a fit	74
Bush-bird	244
„ „ Lark, Singing	110
Bustard	162, 242
„ „ Caffer	111
„ „ Great	117
„ „ -Quails	317, 318
„ „ Indian	vi.
Button-Quail	317
„ „ Greater	vi., 318, 343, 377
„ „ Indian	vi., 145
Buzzard	302
Cabot's Tragopan	95, 96
Cactus Conure	146
<i>celebs</i> , <i>Fringilla</i>	292
<i>Coreba cyanea</i>	300
<i>caeruleus</i> , <i>Elanus</i>	214
„ „ <i>Myiophonus</i>	144, 190
<i>caeruleus</i> , <i>Dicrurus</i>	183
Caffer Bustard	111
<i>cafra</i> , <i>Eupoditis</i>	111
Cage birds in Sierra Leone	212
<i>Calamospiza bicolor</i>	183
Calandra Lark, Eastern	215
Californian Quail, 28, 148, 149, 194, 285	180
<i>Calliste flava</i>	180
„ „ <i>tricolor</i>	215
<i>Calornis chalybeus</i>	vii.
„ „ <i>panayensis</i>	215
Calornis, Glossy	102, 221, 222
Canaries	102, 221, 222
Canary, 47, 48, 49, 50, 72, 78, 82, 147, 151, 152, 194, 218, 238, 244, 252, 376, 378, 403, 407	192, 222
„ „ Cape	306, 307
„ „ -winged Parakeet	215
<i>caniceps</i> , <i>Palaeornis</i>	183
<i>canorus</i> , <i>Catopis</i>	128
<i>cantua</i> , <i>Sterna</i>	192, 222
Cape Canary	viii., 160
„ „ Crowned Crane	236
„ „ Dove	236
<i>capensis</i> , <i>Eua</i>	255
<i>capistrata</i> , <i>Malacins</i>	129
<i>carbo</i> , <i>Phalacrocorax</i>	49, 79
Cardinal	308
„ „ ill	375, 378
„ „ Green, 38, 39, 135, 139, 375, 376, 407	49
„ „ Pope	190, 308, 309, 375, 378, 407
„ „ Red	161
„ „ Virginian, 33, 34, 41, 49, 102, 190, 308, 309, 375, 378, 407	281
<i>Carinata</i>	146
<i>Carine noctua</i>	46
Carolina Conure	82
„ „ Drake	268
<i>carolinensis</i> , <i>Galeoscoptes</i>	vii.
„ „ <i>Pandion</i>	110
<i>Carpophaga enca</i> , var. <i>chalybura</i>	110
„ „ <i>cinerea</i>	110

	PAGE
Carriou Crow ...	35, 36
<i>caniculata</i> , <i>Anthochaera</i> ...	110
Casoars ...	242
Cassique, Black ...	200
Cassowaries ...	161
Cassowary, Eastern One-wattled ...	216
<i>Van Diemen's</i> ...	243
<i>castaneiventris</i> , <i>Sitta</i> ...	208
<i>castanotis</i> , <i>Taniopygia</i> ...	220
<i>Casuarus aurantiacus</i> ...	216
Cat-bird ...	67, 407
" American ...	82, 102
Cattle-Egret ...	153
<i>caudatus</i> , <i>Lamprolornis</i> ...	169, 171
<i>caudifasciatus</i> <i>Pitangus</i> ...	21
<i>cayana</i> , <i>Dacnis</i> ...	180
Cedar Bird ...	365, 366
<i>cedrorum</i> , <i>Ampelis</i> ...	366
<i>Ceryle alcyon</i> ...	61
Ceylonese Parrakeet, Hanging ...	103
Chaffinch 20, 37, 72, 221, 222, 260, 281, 292 ...	239
" Teydeau ...	239
Chaffinches ...	97, 245, 320
<i>Chalcophaps afr</i> ...	337
<i>Chalcophaps chrysocolora</i> ...	309
" <i>indica</i> ...	107
<i>chalcoptera</i> , <i>Phaps</i> ...	399
<i>chalcybeus</i> , <i>Calonnis</i> ...	215
" <i>Lamprocolius</i> ...	170, 171
<i>Chamepilia passerina</i> ...	235
<i>Chauleasmus streperus</i> ...	184
Chestnut-bellied Nuthatch ...	208
" -breasted Finch ...	279
" -eared Finch ...	402
Chiffchaff as a cage bird, The ...	206
" 206, 208, 209, 238, 328 ...	97
Chiffchaffs ...	183
Chilian Pintail ...	144
<i>Chimarrornis leucocephalus</i> ...	vii.
<i>chinensis</i> , <i>Oriolus</i> ...	307
Chinese Blue-Pie ...	168, 109
" Jay-Thrush ...	325
" Painted Quail ...	203, 407
" Quail ...	102
" Zosterops ...	215
<i>chirurgus</i> , <i>Hydrophasianus</i> ...	184
<i>Chloephaga magellanica</i> ...	73, 266
<i>Chloropsis</i> ...	73, 180, 184
" <i>aurifrons</i> ...	180, 184
" <i>hardwickii</i> ...	73, 184
" <i>hodgsoni</i> ...	144
" <i>jerdoni</i> ...	73
" <i>malabarica</i> ...	293
<i>chloropus</i> , <i>Gallinula</i> ...	254
Chough, Alpine ...	399
<i>chrysocolora</i> , <i>Chalcophaps</i> ...	47, 110
<i>Chrysomitris cucullata</i> ...	115, 116
" <i>tristis</i> ...	350
<i>chrysops</i> , <i>Ptilotis</i> ...	145, 303
<i>chrysoterygius</i> , <i>Psephotus</i> , vii., 30, 32, ...	185
<i>Chrysotis agilis</i> ...	145
" <i>angusta</i> ...	110, 111
" <i>bouqueti</i> ...	145
" <i>guldingi</i> ...	183
<i>Ciconia alba</i> ...	495
<i>cincera</i> , <i>Esthilda</i> ...	483
<i>cincloxychna</i> , <i>etrophila</i> ...	145
<i>cinnamomeus</i> , <i>Passer</i> ...	238
Cinnamon Dove ...	145
" Tree-Sparrow ...	247
<i>Cinnyris seylonica</i> ...	284
Cissa, Hunting ...	110
Coach-whip Bird ...	325
Coal Tits ...	20
Cock Robin ...	102, 117, 149, 204, 205, 285, 299, 305, 330

	PAGE
Cockatoo ...	70
" Australian Yellow-crested ...	405
" Bare-eyed ...	103
" Great Sulphur-crested ...	75
" Nasical ...	103
" Roseate ...	45
" Rosy-breasted ...	75
" Salmon-crest ...	103
" White ...	371
" Yellow Crested ...	187
<i>Coccyzus jacobinus</i> ...	183
<i>colchicus</i> <i>Phasianus</i> ...	184
Cole Tit ...	97
<i>Colinus striatus</i> ...	174, 175
Collared Pigeon ...	212
<i>Columba guinea</i> ...	104, 184
" <i>maculosa</i> ...	III, 184, 210
<i>Columba</i> ...	399
<i>Columbula picui</i> ...	230
Compassou ...	156, 194
Common Amaduvade Waxbill ...	304
" Avadavat ...	82, 407
" Babbler ...	382
" Bustard Quail ...	318
" Cormorant ...	129
" Guillemot ...	302
" Gull ...	302
" Hawk-Cuckoo ...	183
" Jay ...	227, 228
" Mynah ...	405
" Pheasant ...	184
" Quail ...	111
" Sandpiper ...	203, 302
" Scoter ...	302
" Tern ...	128
" Waxbill ...	210
<i>communis</i> , <i>Coturnix</i> ...	III, 366, 367, 368
<i>concinna</i> , <i>Carphophaga</i> ...	110
Construction and fitting of small ...	
" Aviaries, The ...	134
Continental Bird Dealers ...	149, 190, 191
<i>contra</i> , <i>Sturnopastor</i> ...	111
Couure, Brown-throated ...	146
" Cactus ...	146
" Carolina ...	146
" Patagonian ...	146, 299, 378
<i>Couurine</i> ...	146
<i>convexus</i> , <i>Anthracoeris</i> ...	177
Coot ...	164, 241
" American ...	62
<i>Coracias affinis</i> ...	144
" <i>garrula</i> ...	177
" <i>indicus</i> ...	284
Coral-billed Bulbul ...	269
Cordon Bleu, 37, 46, 120, 121, 122, 157, ...	171, 194, 218, 223, 281, 315, 338, 370, 403, 466
Cordon Bleu nesting ...	338
Cormorant ...	127, 163, 164, 302
" Common ...	129
" Green ...	302
Corncrake ...	143
<i>coromandelica</i> , <i>Coturnix</i> ...	366, 377
<i>coromandus</i> , <i>Bubulcus</i> ...	183
<i>Corvidae</i> ...	70, 228
<i>Coturnix communis</i> ...	III, 366, 367, 368
" <i>coromandelica</i> ...	366, 377
Council, Annual Meeting of the ...	311
" The Election for the ...	376
"Courial" ...	115
Couriers ...	238
Cowbird ...	102, 103
" Silky ...	172
Crane, Asiatic White ...	195
" Balearic Crowned ...	vii.
" Cape Crowned ...	viii., 160
" Crowned ...	159, 195
" Demoiselle ...	vi., 159, 344, 390, 392

	PAGE
Crane, Stanley	113
Cranes	153, 190
<i>Craferopus canorus</i>	183
Creeping, Tree	79
" Wall	215
<i>crepitans, Psophodes</i>	110
Crescent Honey-eater	352
Crested Mynah	405
" Pigeon	111, 184
" Australian, 108, 109, 150, 151	151
Crimson-breasted Barbet	183
" -eared Waxbill	120
" Finch	388
" -rumped Waxbill	249
" -wing Parrakeet, 102, 179, 277, 299	299
<i>cristata, Geopelia</i>	184
Cross between a Mannikin and a Cape Canary, A	222
<i>Crotaphaga ani</i>	22
Crow	34, 70
Crowned Crane	159, 195
" " Balearic	vii.
" " Cape	viii., 160
Crows,	246, 263, 266, 207
" Rooks, etc.	76
<i>cruciatum, Dicæum</i>	183
Crystal Palace Bird Show, Soue	
Notes on the	178
Cuba Finch	180
Cuban Amazon	103
Cuckoo	37, 151
" Common Hawk-	183
" Indian	183
" Hawk-	173
" Pied Crested	183
Cuckoos	99, 164, 221
<i>cucullata, Chrysomitris</i>	47, 110
" <i>Spermestes</i>	213
<i>Cuculus micropterus</i>	183
<i>cuneata, Geopelia</i>	216, 234
Curious nesting place of Budgerigars	29
Curlew	302
" Stone	203, 233
Cutthroat	192, 226, 394, 379, 407
<i>cyanea, Cæreba</i>	305
" <i>Guinea</i>	253
<i>cyaneus, Malurus</i>	15, 82
<i>Cygnus atratus</i>	210
<i>cyanostris, Ardea</i>	58
<i>cyanocephala, Palæornis</i>	147
<i>cyanoccephalus</i>	187
<i>Cyanocorax cyanopogon</i>	227
<i>cyanopogon, Cyanocorax</i>	227
<i>Cyanops franklini</i>	84
<i>Cyanorhamphus auriceps</i>	301
" <i>novæ-zealandiæ</i>	301
<i>cyanoptera, Siva</i>	181
Dabchick	302
<i>Dacnis cayana</i>	180
<i>Dafila</i>	61
" <i>bahamensis</i>	61
" <i>spinicauda</i>	183
Damara Turtle Dove	233, 234
<i>damarensis, Turtur</i>	233
<i>Daulias golzii</i>	283
" <i>lusciniæ</i>	283
" <i>philomela</i>	283
<i>dauma, Oreocincta</i>	215
Death-rate, The Influence of Diet on the Avian	354
Deceptive Turtle-Dove	237
<i>decipiens, Turtur</i>	237
Delalande's Fruit Pigeon	232
<i>delalandei, Vinago</i>	232
Demoiselle Crane	159, 334, 390, 392
<i>Dendraca dominica</i>	23
" <i>pinus</i>	23

	PAGE
<i>Dendraca petchia</i>	60
<i>Dendrocitta</i>	284
<i>Dendrocopus macii</i>	183
<i>Dendrocygna arborea</i>	62
" <i>viduata</i>	214
<i>dentata, Petronia</i>	294, 295, 296, 298
Dhyal	42, 43, 268, 407
Diamond Dove	32, 34, 45, 234, 280, 343
" Doves, etc.	280
" Finch	254
<i>Dicaeum cruentatum</i>	183
" <i>cythorhynchus</i>	145
<i>dicolorus, Rhamphastos</i>	247
<i>Dicrurus cæruleus</i>	183
<i>diffusus, Oriolus</i>	vii.
" <i>Passer</i>	306
<i>discursus, Prioniturus</i>	vii., 345, 408
Diver, Black-throated	302
" Great Northern	302
" Red-throated	302
<i>domesticus, Passer</i>	297
<i>dominica, Dendraca</i>	23
<i>dominicensis, Tyrannus</i>	93
<i>Doricha evelyna</i>	22
Dotterel	202, 302
" Ring	302
Double-banded Finch	123, 179
<i>dougalli, Sterna</i>	128
Dove	410
" Aurita	108
" Australian Green-winged	399
" Barbary	130
" " Turtle- 105, 106, 107, 109, 130	130
" Bleeding Heart, 131, 132, 133, 232, 399	130
" Blue-headed Turtle-	130
" British Turtle-	106
" Bronzed-necked	108
" Cape	236
" Cinnamon	238
" Damara Turtle-	233, 234
" Deceptive Turtle-	237
" Diamond	32, 34, 45, 234, 280, 343
" Dwarf Turtle-	111
" Emerald	397
" Graceful Ground-	216
" Ground-	24, 399
" Half-collared Turtle-	106, 107
" Harlequin	236, 237
" Indian Green-winged	107
" Martinican	184
" Mountain Witch Ground-	184
" Necklace	106, 107, 130, 131, 231
" Passerine	235, 247
" Peaceful	247
" Picui	133, 194, 236, 247
" Plumed Ground-	247
" Ring	151
" Rock	241
" Ruddy	130
" Rufous	231
" Scaly	237, 238
" Senegal	117, 130, 131, 233, 247
" Steel-barred	236
" Stock	325
" Senegal Turtle	107
" Tambourine	212, 235, 236, 398, 399
" Tobacco	24
" Turtle-	241
" Vinaceous Turtle-	111
" Violet, 72, 231, 232, 393, 394, 395	396, 397
" White-fronted	vi, 231, 393
" White-winged Zenaïda	82, 131
" Zebra	82, 107, 247
Doves, 77, 79, 102, 103, 248, 263, 264, 393, 394, 395, 326, 397, 398	397
" Eating Insects and Worms	397
" Notes on Part 2	104

	PAGE
Doves, Notes on Part 3 ...	130
" " " 4 ...	231
<i>Dromas ater</i> ...	242
Drongo, White-bellied ...	183
Drongos ...	263, 200
Duck ...	87, 103
" Australian Wild ...	184
" Bahama ...	61
" Carolina ...	40
" Eider ...	124, 127, 302
" Long-tailed ...	302
" Rosy-billed ...	111, 183, 216
" Shield- ...	302
" Spotted-billed ...	184, 216
" Wild ...	183, 302
" Summer ...	184
" Tree- ...	214
" Tufted ...	302
Ducks ...	61, 161, 214, 255
Dunlin ...	202, 302
Dusky Shearwater ...	94
<i>dussumieri</i> , <i>Turnix</i> ...	318, 323
Dwarf Turtle-Dove ...	111
Dyál ...	102
Eagle, Golden ...	302
" -Owl, Spotted ...	216
" Sea- ...	302
" White-breasted Sea- ...	183
" White-tailed ...	302
Eagles ...	214
<i>earlii</i> , <i>Argya</i> ...	215
Eastern Calandra Lark ...	215
" Linnet ...	215
" Meadow Bunting ...	145
" One-wattled Cassowary ...	210
Eclectus Parrot ...	103
Editorial ...	119
<i>edouardi</i> , <i>Guttera</i> ...	111
Eggs of the Grey Singing-finch, The, ...	374
" " Serin-finches ...	327
Egret ...	50
" Little ...	241
" Reddish ...	57, 58
" White ...	50, 57
Egrets ...	370
Eider Duck ...	124, 127, 302
<i>Elanus caeruleus</i> ...	214
Election for the Council ...	376
<i>elegans</i> , <i>Platycercus</i> ...	336
<i>Emberiza melanocephala</i> ...	180
" <i>stewarti</i> ...	145
Emerald Dove ...	397
Emu, Black ...	242
Emus ...	161, 243
<i>Eos wallacei</i> ...	145
<i>erythrocephala</i> , <i>Amadina</i> ...	192
<i>erythrocephalus</i> , <i>Platycercus</i> ...	301, 336
<i>erythrorhyncha</i> , <i>Urocissa</i> ...	307
<i>erythrorhynchus</i> , <i>Dicaeum</i> ...	145
<i>Erythrura prasina</i> ...	179
<i>Estrilda</i> ...	218
" <i>amadava</i> ...	175
" <i>angolensis</i> ...	120, 121, 179, 403
" <i>cinerea</i> ...	405
" <i>phenicotis</i> ...	120, 171
" <i>rhodopyga</i> ...	vii., 249, 405
<i>euchlorus</i> , <i>Passer</i> ...	306, 335
<i>Eudocimus albus</i> ...	111, 184, 216
<i>Entellidae</i> ...	169
<i>Euplocamus nycthemerus</i> ...	184
" <i>swinhoi</i> ...	184, 216
<i>Eupodotis caffa</i> ...	111
European Goldfinch ...	246
<i>evyling</i> , <i>Doricha</i> ...	22
<i>Excalfactoria</i> ...	321, 323
<i>eximius</i> , <i>Platycercus</i> ...	145, 336

	PAGE
Fairy Blue Chat ...	24
<i>falcinellus</i> , <i>Plegadis</i> ...	III, 184, 210
Falcon ...	214
" Peregrine ...	302
Farne Islands, A Visit to the ...	124
Farrar's (Rev. C. D.) Record ...	467
Feather-picking Shama, A ...	80
" -plucking, nibbling, & eating ...	300
<i>ferruginea</i> , <i>Munia</i> ...	342
Field Notes on some Bahama Birds :	
Part 2 ...	19
" 3 ...	54
" 4 ...	87
" Fighter ...	21
Finch, Amaranth ...	406
" Anora ...	179, 149, 281
" Australian Crimson ...	102
" Bahama ...	19
" Bib- ...	102, 406, 407
" Bichenor ...	225, 407, 409
" Black-headed Gouldian. ...	37, 38, 157, 191, 226, 286
" Chestnut-breasted ...	279
" -eared ...	402
" Crimson ...	388
" Cuba ...	180
" Diamond ...	254
" Double-banded ...	123, 179
" Fire- ...	38, 49, 213, 407, 409
" Gouldian, 148, 150, 179, 225, 254, ...	279, 310, 336, 337, 342, 344, 370, 378, 403
" Grass- ...	37, 38, 343
" Green- 151, 218, 245, 248, 249, 303, 326 ...	" Singing, 72, 82, 304, 327, 328, 402
" Grey Singing, 194, 252, 304, 327, ...	374, 407, 410
" Guttural ...	115
" Hybrid ...	145
" Indigo ...	407
" Javan Maja- ...	342
" -Lark, Ashy-crowned ...	110
" Lavender, 49, 223, 224, 226, 253, ...	281, 285, 370, 377
" Lined ...	115
" Long-tailed Grass- 179, 225, 294, 304 ...	179
" Masked Grass- ...	101
" Melodious ...	179
" Olive ...	215
" Pale Rose- ...	37, 103, 286, 342
" Parrot ...	46, 72, 130, 225, 226, 294, 304
" Pectoral ...	40, 279
" Pileated ...	102
" Plumbeous ...	115
" Red-faced ...	179, 403, 410
" " -headed ...	192
" " Gouldian, 37, 38, 117, ...	285, 336, 337
" Ribbon- ...	41, 370
" Ringed ...	179
" Rosy ...	254
" Rufous-tailed ...	179
" Saffron ...	73, 77, 286
" Sepoy ...	215
" Serin ...	402
" Sharp-tailed ...	112
" White-throated ...	102, 147, 315
" Zebra, 38, 102, 157, 220, 221, 248, ...	249, 286, 327, 407
Finches ...	257, 263
" African ...	41
" Australian ...	77
Fine collection of Parrakeets, A ...	298
<i>finchi</i> , <i>Palaornis</i> ...	110
Firecrests ...	191
Firefinch ...	38, 49, 213, 407, 409

	PAGE		PAGE
Fish Hawk	59	Glossy Starling	172, 173
Flamingo	56, 87	" " Green	170
" Ruddy	210	" " Long-tailed	103, 169, 170
Flamingoes	404	" " Purple-headed	171
<i>flammea</i> , <i>Strix</i>	214	" Starlings	169, 171, 277
<i>flava</i> , <i>Calliste</i>	180	Goat Bird	209
<i>flavala</i> , <i>Hemixus</i>	85	Godwit, Bar-tailed	263, 302
<i>flavoculus</i> , <i>Platyercus</i>	301	Goldcrest	326
<i>flavivestris</i> , <i>Myiophonus</i>	199	Golden-backed Woodpecker	145
<i>flaviventris</i> , <i>Otocampa</i>	145	" -crested Wren	21, 63, 373
Flight of Birds, Peculiarities in the	150	" -crowned Parakeet	301
Flint and Shell-grit for birds	341	" Eagle	302
Florida Gallinule	62	" -eyed Babbler	83, 84, 85, 86
Flower-Pecker, Scarlet-backed	183	" Fruit-Pigeon	116
" " Tickell's	145	" Oriole	302, 307
Flycatcher	20	" -shouldered Parakeet, vii.,	30, 32, 277, 300, 329
" Bareilly	184	" Sparrow	305, 335
" Goruckpore	184	" " Arabian	306
" Rufous-tailed	21	" -throated Barbet	84
" Verditer	215	" Weaver	30
" Warbler	215	Goldeneye	302
<i>fluviatilis</i> , <i>Sterna</i>	128	Goldfinch, 37, 49, 72, 137, 156, 226, 244, 240,	252, 286, 315, 344, 409
Food for Goldfinches	187	" and Green Singing Finch	71
Foreign Finches out-of-doors,		" Hybrids	246
Wintering	41	" European	82, 240
Fork-tailed Petrel	339	" Siberian	187
Forsten's Lorikeet	344	Goldfinches, Food for	187
Fox Sparrow	144	Gold-fronted Green-Bulbul	73, 184
<i>franklini</i> , <i>Cyanops</i>	84	Golden Pheasant	184, 190, 374, 375
Fraucolin	102, 407	<i>golzii</i> , <i>Daulias</i>	283
<i>Fratercula arctica</i>	126	Goosander	302
Fresh Ants' Eggs	404	Goose, Brent	302
Frigate Bird	91	" Grey Lag-	302
<i>Fringilla cœlebs</i>	292	" Solani	302
<i>fringillirostris</i> , <i>Acanthis</i>	215	" Upland	184
<i>fringilloides</i> , <i>Amauresthes</i>	213	Goruckpore Flycatcher	184
Fruit Pigeon	237	Goshawk	190
" Bronze	vii.	Gouldian Finch, 148, 156, 179, 225, 254,	279, 310, 336, 337, 342, 344, 370, 378, 493
" " Delalande's	232	" " Black-headed, 37, 38, 157,	191, 226, 286
" " Golden-eyed	110	" " Red-headed, 37, 38, 117,	285, 336, 337
" " Green	213	Gouldians; Pin-tailed Nonpareils;	
Fruitsucker, Hodgson's... ..	184	Californian Quails, Budgerigars, 148	
Fruitsuckers	266, 267	Graceful Ground-Dove	210
<i>Fuligula americana</i>	62, 215	Grass-finch	37, 38, 179, 338, 343
Fulmar	339, 331	" " Long-tailed	179, 225, 294, 304
Fulvous-breasted Pied Woodpecker	183	" " Masked	179
<i>fusca</i> , <i>Cedemia</i>	145	" " Rufous-tailed	407
Fuscous Honey-eater	359	Grasshopper Warbler	26
<i>fuscus</i> , <i>Artamus</i>	215	Great Bird of Paradise	216
" <i>Larus</i>	125	" Black-backed Gull	302
Gadwall	184	" Blue Heron	58
Galapagan Barn-Owl	215	" Bustard	117
<i>galeata</i> , <i>Gallinula</i>	62	" Northern Diver	302
<i>Galeoscoptes carolinensis</i>	82	" Reed Warbler	373
<i>Gallinula chloropus</i>	293	" Skua	302
" <i>galeata</i>	62	" Sulphur-crested Cockatoo	75
Gallinule, Florida	62	" Titmouse	79
Game Birds	318, 321	Greater Black-backed Gull	111, 302
Gannet	302	" Bustard-Quail	318
Gannets	125, 162, 163, 164	" Button-Quail	vi., 318, 343, 377
Garden Warbler	97, 371	" Hill Mynah	405
<i>garrula</i> , <i>Ampelis</i>	357, 395, 366	" Nightingale	283
" <i>Coracias</i>	177	" Spotted Woodpecker	23
<i>Garrulax sinensis</i>	168, 169	" Whitethroat	295
Garrulous Honey-eater	101	Grebe, Little	302
General Index, Proposed	153, 193, 253	" Slavonian	302
<i>Groechia wardi</i>	183	Grebes	164
Geoffroy's Pigeon	237	Green Amaduvade Waxbill	304
<i>Geophaps</i>	248	" Avadavat	46, 82, 344, 377
<i>Geopelia cuneata</i>	216, 234	" Barbet, Indian	145
<i>Geotrygon cristata</i>	184	Green-billed Toucan	181, 247
German Bird-dealers and fanciers	371	" Bulbul	73, 258
<i>giganteus</i> , <i>Argus</i>	216		
Glaucous Gull	302		
Glossy Calornis	215		
" Ibis	111, 184, 216		

	PAGE		PAGE
Green Bulbul, Blue-winged	73	<i>hamatocephala, Xantholama</i>	183
" " Gold-fronted	73, 184	<i>hematonotus, Psephotus</i>	32
" " Jerdon's	144	<i>hematopus ostralegus</i>	127
" " Malabar	73	<i>hematopiza sipali</i>	215
" " Orange-bellied	73	Hairy Woodpecker	23
Green Bulbuls (Chloropsis)	73, 184, 285	Half-collared Turtle-Dove	106, 107
" Cardinal, 38, 39, 135, 139, 375,	376, 407	" day's bird-nesting with the	
" Cormorant	302	Camera. A	292
" -finch, 151, 218, 245, 248, 249, 303, 326		" moon Parrakeet	396
" Fruit Pigeon	213	<i>haliactus, Pandion</i>	59
" Glossy Starling	170	<i>Haliastur leucosternus</i>	185
" Heron	57, 58	Hanging Ceylonese Parrakeet	103
" Linnets	97	" Parrakeet	277, 278
" Military Macaw	103	" " Blue-throated	102
" Singing Finch, 72, 82, 304, 327,	328, 402	" " Red-headed	102
" " South African	78	" " Sclater's	277
" -Winged Dove, Indian	107	" " Vernal	110
" Woodpecker	37, 239	Haugnest	173, 225, 303
Greenshank	302	" Brazilian	171, 172, 333
Grenadier Weaver	192	" Red-headed	181
Grey-headed Sparrow	306	<i>hardwickii, Chloropsis</i>	180, 184
" Hen	315	Hardy Birds	77
" Lag-Goose	302	Harlequin Dove	236, 237
" Linnet	78, 245	Harrier, Hen	302
" Parrot, 40, 103, 117, 156, 185, 186, 188,	189, 218, 307, 332, 333, 344, 345	Hawk	162, 267, 292
" " biting its feathers	332	" Fish	59
" " in Trouble	188	" Sparrow	203
" Plover	56, 91	Heating, etc. for Aviary	71
" Singing Finch, 194, 252, 304, 327,	374, 407, 410	Hedge Sparrow	97, 245, 326
" " Finches breeding	252	Hemipodes	317, 323
" Teal	215	<i>Hemixus flavala</i>	85
" Tyrant	21	Hemp Seed	282
" Wagtail	239	Hen Harrier	302
" Waxbill 156, 157, 226, 249, 344, 377		<i>Henicognathus</i>	146
" -winged Ouzel	215	<i>herodias, Andea</i>	58
<i>grisea, Pyrrhuloxia</i>	110	Heron 37, 57, 58, 59, 162, 202, 214, 302	
Grosbeak	20, 179	" -breeding in Tunis	370
" Brazilian Blue	253	" Great Blue	58
" Rosy-breasted	78, 79	" Green	57, 58
Ground Dove	24, 399	" Louisiana	58
" -pigeons	399	" Pond-	183
Grouse	163	" Violet-crowned Night	57
" Red	118	" White	56
<i>Grus leucogeranus</i>	195	Herring-Gull	111, 126, 184, 216, 302
Guiding's Amazon	145	<i>hiaticola, Aegialitis</i>	128
<i>guidingi, Chrysotis</i>	145	<i>Hierococyx varius</i>	173, 183
Guillemot, Black	302	Hill Partridge, Blyth's	145
" Bridled	302	" -Tit, Silver-eared	379
" Common	302	Himalayan Black Bulbul	209
" Ringed	302	" Blue-Pie	284
Guillemots	124, 125, 126, 129	" Rufous-cheeked Thrush	78
<i>guinea, Columba</i>	104, 184	" Whistling-bird	196
Guinea-fowl, Verreaux's	111	Hobby	36
<i>Gurra</i>	399	<i>hodgsoni, Chloropsis</i>	73, 184
<i>Guraca cyanea</i>	253	" <i>Phyllornis</i>	184
<i>gulielmi, Poocephalus</i>	39, 40	Hodgson's Fruitsucker	184
Gull, Black-headed	302	<i>holosericeus, Amblyramphus</i>	181
" Common	302	Honey-eater, Crescent	352
" Great Black-backed	302	" Fuscous	350
" Greater Black-backed	111	" Garnious	161
" Glaucous	302	" Lunulated	348
" Herring-...	111, 126, 184, 216, 302	" Sanguineous	353
" Iceland	302	" Warty-faced	352
" Jameson's	216	" Wattled	110
" Lesser Black-backed, 125, 126, 127,	302	" White-bearded	350, 352
" Winter	302	" " -eared	349
Gulls	124, 143, 164	" " -naped	348, 349
<i>gural, Pelargopsis</i>	215	" " -plumed	350
<i>Guttera edouardi</i>	111	" " Yellow-faced	350
Gutteral Finch	115	" " -plumed	350
<i>gutteralis, Spermophila</i>	115	" " -tufted	349
<i>Gymnokitta</i>	70	Honey-eaters	180, 347, 348
" <i>hyperleuca</i>	70	Hooded Siskin	47, 48, 51, 115, 116
		Hoopoe	77, 238
		Hornbill, Malayan Wrinkled	183
		" Mindanao	vii.
		" Temminck's Pied	177
		House Martin	325

	PAGE		PAGE
House Sparrow	295, 297	Jameson's Gull	216
How not to breed Redrumps	204	Japanese Robin	374
<i>humilis, Turture</i>	111, 130	<i>japonica, Zosterops</i>	180
Humming Bird	22	<i>japonicus, Ampelis</i>	366
Hunting Cissa	201, 284	<i>Jardine's Parrot</i>	39, 46
Hybrids	147, 405, 407	Javan Maja-finch	342
Bearded Seed Eater x Canary	147	Parrakeet	299
Bronze Mannikin x Bengalese	407	Java Sparrow	46, 77, 112, 249, 250, 285, 304
<i>Estrilda rhodopyga</i> x <i>E. cinerea</i>	405	" White	37, 38, 82, 117
<i>Eutocinus alba</i> x <i>E. ruler</i>	210	Jay	37, 326
Hybrid Finches	145	Blue	230
Green Singing Finch x Canary	78	Blue-bearded	227, 230
" " " x Goldfinch	72	Common	227, 228
Grey " " x Canary	407	Pileated	227
Hybrid, Interesting	405	-Thrush, Chinese	168, 169
Macaws	145	<i>Jerdon, Chloropsis</i>	144
Parrakeets	145	Jerdon's Green-Bulbul	144
Singing-finch, etc.	304	Jungle Babbler	183
Turtle-Dove x Barbary Dove	100	Kaka Parrot	244
<i>Hydrophasianus chirurgus</i>	215	Kakapoo Parrot	244
<i>hyperleuca, Gymnorhina</i>	70	Kea	244
<i>Hyphantornis melanocephalus</i>	215	Kestrel	59, 61, 302
<i>Hypsipetes psaroides</i>	209	King Bird	93
<i>Ianthocincla rufigularis</i>	109	Bahama	20
Ibis, Glossy	111, 184, 210	Kingfisher	164, 214, 263
Hybrid	210	Belted	61
Scarlet	337	Brown-headed Stork-billed	215
White	111, 184	King Parrakeet	102, 179, 277, 299
Iceland Gull	302	Peinguins	112
<i>Icteria</i>	52	Kite	263, 269, 302
<i>icterotis, Platycercus</i>	300	Kittiwake	120, 302
<i>Icterus jamaicæ</i>	171	Kiwi	244
<i>icterus, Serinus</i>	327	Knot	203, 302
Identification of bird	302	<i>Lagonostieta minima</i>	213
Identity of bird	252	<i>nigricollis</i>	224
<i>iliaca, Passerella</i>	144	" <i>niveiguttata</i>	179
<i>incertus Psittinus</i>	277	<i>Lamprocolius auratus</i>	171
Index, Proposed General	153, 193, 253	" <i>chalybeus</i>	170, 171
Indian Amaduvade	77	" <i>nitens</i>	171
Bustard-Quail	318	" <i>purpureus</i>	171
Button-Quail	vi., 145	<i>Lamprolornis aeneus</i>	171
Cuckoo	183	<i>caudatus</i>	169, 171
Great Reed Warbler	215	Landrail	203, 217, 400
Green Barbet	145	<i>Lanius vittatus</i>	215
" -winged Dove	107	Lapwing	203, 302
Hawk Cuckoo	175	Large Andaman Parrakeet	145
Jungle Quail	407	-billed Weaver-bird	145
Magpie	284	-Pied Wagtail	215
Parrakeet	102	Lark, Ashy-crowned Finch-	110
Pitta	215	Black-headed	215
Redstart	208	Bunting	183
Roller	72, 73, 284	Eastern Calandra	215
Roller and the Snake; or the		Siberian	203
Biter bit	72	Singing Bush-	110
Satin Starling	232	Wood	147
Tree Pie	103	Larks	245, 263
<i>indica, Chalcophaps</i>	107	<i>Larus argentatus</i>	111, 126, 184, 210
<i>indicus, Coracias</i>	284	<i>fuscus</i>	125
Indigoes	103	<i>marinus</i>	111
Indigo Blue Bird	280	Laughing Jackass	102
Finch	407	-Thrush, Rufous-	
Influence of Diet on the Avian Death-		chinned	109, 257
rate	354	" " Western Yellow-	
<i>inscriptus, Pteroglossus</i>	33	winged	109
Instinct and nest-building	192, 218	Thrushes	79
in Song Birds; Method of		<i>laurina, Mesia</i>	380
breeding in hand-reared		Lavender Finch, 49, 223, 224, 226, 253,	
Robins	273	281, 285, 370, 377	
Interesting Hybrid, An	405	Lemon-crested Australian Cockatoo	116
Iora, Yellow	268	<i>lepidæ, Phonipara</i>	179
Jacana, Pileated Pheasant-tailed	215	<i>Leptoptila</i>	399
Jackdaw	99, 325	<i>jamaicensis</i>	vi., 231, 393, 408
White	103	Lesser Black-backed Gull, 125, 126, 127, 302	
<i>jacobinus, Coccystes</i>	183	Ringed Plover	77
<i>jamaicæ, Icterus</i>	171	Rock-Sparrow	294, 296
<i>jamaicensis, Leptoptila</i>	vi., 231, 393, 408	Tern	92

	PAGE
Lesser White-backed Piping Crow	70
" Whitethroat	100
Lettered Aracari	32, 33, 75
" " Orioles, etc.	32, 75
" Toucan	32
<i>leucogeranus</i> , <i>Grus</i>	195
<i>leucolophum</i> , <i>Tigrisoma</i>	214
<i>leucoptera</i> , <i>Melopelia</i>	82, 131
<i>leucopygius</i> , <i>Syrnium</i>	327
<i>leucosternus</i> , <i>Haliastur</i>	183
<i>leucotis</i> , <i>Ptilotis</i>	349
" <i>Pycnonotus</i>	78
Lime-bird	213
<i>lineatum</i> , <i>Trochalepteron</i>	74
Lined Finch	115
<i>lineola</i> , <i>Spermophila</i>	115
Lineolated Parrakeet	102
Linnnet	37, 47, 80, 112
" Brown	97
" Eastern	215
" Green	97
" Grey	78, 245
Liothrix	78, 340, 378, 379
" Redpoll: Hybrid	78
" Some Notes on the	340
" Yellow-bellied	379
List of Members	1
Little Ank	302
" Bustard-Quail	318
" Button-Quail	318
" Egret	241
" Grebe	302
" Owl	281, 325
" Stint	107
Long-eared Owl	302
" -horned Owl	307, 308
" -tailed Duck	302
" " Glossy Starling	103, 169, 170
" " Grass-Finch,	179, 225, 294, 304
" " Tit	191
" " Titmice	373
" " Whydah	279
Longevity of a Cockatoo	370
<i>Lophophaps plumifera</i>	247, 248
<i>lophotes</i> , <i>Ocyphaps</i>	108, 111, 184
Lories	180, 183, 188
<i>Loriculus vernalis</i>	110
Lorikeet, Blue Mountain	102, 185
" Forsten's	344
" Musky	102, 157, 299
" Ornate	299
" Red-collared	111
" " crowned	114
" Scaly-breasted	299
" Swainson's,	114, 158, 179, 180, 299
" Varied vii.,	114, 178, 215, 287,
	290, 291
Lorikeets	178, 188
Lory, Wallace's	145
Louisiana Heron	58
Love-bird	178, 277, 278, 281, 285
" Blue-winged	33, 245
" " Madagascar	40, 304
" " Red-faced	31, 118, 305
" " Rosy-faced	183
Lovebirds, etc. for cold Greenhouse	304
<i>luconensis</i> , <i>Prioniturus</i>	345
<i>lunulatus</i> , Honey-eater...	348
<i>lunulatus</i> , <i>Melithreptus</i>	348
<i>luscinius</i> , <i>Daulias</i>	283
<i>luteus</i> , <i>Passer</i>	180, 305, 306, 335, 380
<i>luzonica</i> , <i>Phlogoenas</i>	132, 399
Lyre-bird	110, 193
macao, Ara	145
Macaw	103, 305, 307
" Green Military	103
" Hybrid	145

	PAGE
<i>Machetes pugnax</i>	141
<i>macii</i> , <i>Dedrocopus</i>	183
<i>macrura</i> , <i>Sterna</i>	127
<i>maculosa</i> , <i>Columba</i>	111, 184, 216
<i>maculosus</i> , <i>Bubo</i>	210
Madagascar Lovebird	46, 304
<i>maderaspensis</i> , <i>Motacilla</i>	215
<i>magellanica</i> , <i>Chloephaga</i>	184
<i>maguiniensis</i> , <i>Palcoornis</i>	145
Magpie	169, 227
" Indian	284
" Tasmanian	70, 71
Maja-finch, Javan	342
<i>maja</i> , <i>Munia</i>	179
<i>major</i> , <i>Parus</i>	79
Malabar Bulbul	184
" Green Bulbul	73
" Mynah	42, 43, 405
<i>malabarica</i> , <i>Chloropsis</i>	73
<i>malacca</i> , <i>Munia</i>	145
<i>Malacias capistrata</i>	255
Malayan Wrinkled Hornbill	183
Male Lyre-bird incubating	193
Mallard	302
<i>Malurus cyaneus</i>	15, 82
Mannikin	344
" Bronze	225, 226, 407
" Tri-coloured	286
" White-headed	179
Mannikins	171, 179, 222
<i>mantellus</i> , <i>Apteryx</i>	150
<i>Mantell's Apteryx</i>	150
" " laying in captivity	150
Maui Shearwater	95, 302
Many-coloured Parrakeet,	32, 102, 300,
	342, 343, 407
Maori Hens	244
<i>marinus</i> , <i>Larus</i>	111
Marsh Tit	80
Martin, House	325
Martinican Dove	184
Masked Grassfinch	179
" Parrakeet	106, 107, 277
Master's Parrakeet	277
Meadow-Bunting, Eastern	145
Mealy Rosella	102, 299
Medal Rule, New	81, 116
" The Secretary and the Society's,	42
" The Society's,	13, 82, 343, 377, 408
<i>megarhynchus</i> , <i>Ploceus</i>	145
<i>melanocephala</i> , <i>Emberiza</i>	180
" <i>Pyrrhuloxia</i>	215
<i>melanocephalus</i> , <i>Hyphantornis</i>	215
" <i>Oriolus</i>	vii.
<i>Melanocorypha bimaculata</i>	213
<i>melanops</i> , <i>Stoparola</i>	215
<i>melanura</i> , <i>Polytelis</i>	179
<i>melba</i> , <i>Pytelia</i>	403
" <i>Zonogastis</i>	403
<i>Melinoris australasiana</i>	352
" <i>novae hollandiae</i>	350
<i>Meliphaga phrygia</i>	352
<i>Melithreptus lunulatus</i>	348
Melodious Finch	101
<i>Melopelia leucoptera</i>	82, 131
Members. List of	1
<i>Menura superba</i>	110
" <i>victoriae</i>	193
Merganser, Red-breasted	302
Mergansers	162
Merlin	302
<i>Merula merula</i>	292
" <i>migratoria</i>	273
<i>Mesia argentauris</i>	144, 181, 379
" <i>laurina</i>	380
Mesia, Silver-eared, vi.,	83, 84, 144, 181,
	379, 382
<i>Metopiana pepsoca</i>	111, 183, 216

	PAGE		PAGE
<i>micropterus, Cuculus</i> ...	183	Nightingale in Captivity, Observa-	
<i>migratoria, Merula</i> ...	273	tions on the Breeding	
<i>miratorius, Turdus</i> ...	273	of the ...	252
<i>militaris, Ara</i> ...	145	" not Moulting ...	147
Military Macaw, Green ...	103	" off South Africa ...	283
<i>Mimus pitachnicus</i> ...	189	Nightingales ...	201
" <i>patagonicus</i> ...	189, 190	" Passerine Parrakeets, etc. ...	281
" <i>polyglottus</i> ...	189	<i>nigricans, Seleucidus</i> ...	109
Mindanao Hornbill ...	vii.	<i>nirocollis, Lagonosticta</i> ...	244
Minivet, Short-billed ...	268	<i>nigumentum, Trocholaptem</i> ...	109
<i>minima, Lagonosticta</i> ...	213	<i>Nigrita arnaudi</i> ...	303, 305
<i>minuta, Tringa</i> ...	107	<i>nigrorufa, Spermothila</i> ...	115
<i>Mirafra cantillans</i> ...	110	Niltava, Rufous-bellied ...	24, 144
Missel Thrush ...	98, 102	<i>Niltava sundura</i> ...	24, 144
Misuse of the Mealworm ...	77, 210, 278	<i>nisus, Accipiter</i> ...	293
Mocking Bird ...	189, 333, 407	<i>nitens, Lamprolanius</i> ...	171
" Patagonian ...	189	<i>niveiguttata, Lagonosticta</i> ...	vii., 179
Modern Noah, A. ...	100	<i>noctua, Athen</i> ...	281
<i>mollissima, Somateria</i> ...	127	" <i>Carine</i> ...	281
<i>Molothrus bonariensis</i> ...	172	Noddy Tern ...	92, 93, 94
Moorhen ...	62, 214, 293	Nonpareil ...	103, 157, 280, 407
More about the Spotted Wing ...	270	" American ...	149
Mountain Ka Ka ...	210	" Pintail, 82, 118, 148, 149, 156,	
" Witch Ground-Dove ...	184	157, 179, 194, 220, 315	
Mousebird, Striated ...	174, 176, 177	<i>notabilis, Nestor</i> ...	210
<i>Motacilla maderaspatensis</i> ...	215	Notes on Doves ...	104, 130, 231
<i>multicolor, Psephenus</i> ...	145, 300	" " a private collection of living	
<i>Munia atricapilla</i> ...	179	birds during 1900-02 ...	168
" <i>ferruginosa</i> ...	179, 342	<i>novae-hollandae, Trichoglossus</i> ...	114
" <i>maja</i> ...	179	" <i>-zealandiae, Cyanoramphus</i> ...	301
" <i>malacca</i> ...	145	<i>nuchale, Syrniun</i> ...	214
" <i>pectoralis</i> ...	270	Nun ...	118, 304
" <i>rubro-nigra</i> ...	145	" Black-headed ...	305
<i>muraria, Tichodroma</i> ...	215	Nutcracker ...	203, 315, 400
Musky Lorikeet ...	102, 157, 299	Nuthatch ...	325
<i>Myiarchus sagrei</i> ...	21	" Chestnut-bellied ...	268
Mynah, Black-headed ...	405	<i>nycthemerus, Euplocamus</i> ...	184
" Common ...	405	<i>Nyctiardea violaceus</i> ...	57
" Crested ...	405	<i>Nymphicus</i> ...	339
" Greater Hill ...	405	<i>obsoleta, Rhodospiza</i> ...	215
" Malabar ...	42, 43, 405	<i>occipitalis, Urocissa</i> ...	284
" Pied ...	111	<i>Ocyphaps lophotes</i> ...	108, 111, 184
" and Cockatoo ...	405	<i>Edemia fusca</i> ...	145
Mynahs ...	79, 268	<i>Ena capensis</i> ...	236
<i>Myiophonus</i> ...	190, 198	Olive Finches ...	179
" <i>caeruleus</i> ...	144, 106	Olive Oriole ...	102
" <i>flavirostris</i> ...	199	Open-bill ...	144
" <i>temminckii</i> ...	196, 199, 201, 276	Orange-bellied Green-Bulbul ...	73
<i>Myiopsittacus</i> ...	181	" Bishop ...	192, 280
Naming Brazilian Birds ...	115	" -cheeked Waxbill 41, 118, 223,	
<i>nasalis, Pycnorhis</i> ...	85	224, 377, 410	
Nasical Cockatoo ...	103	<i>Oreocincla dauma</i> ...	215
Necklace Dove, 106, 107, 130, 131, 234		Oriole, Baltimore ...	78
<i>Nectariniide</i> ...	180	" Black-headed ...	vii.
<i>Neophema pulchella</i> ...	300	" -naped ...	vii., 33, 84
Nesting Notes ...	406	" Golden ...	302, 373
" of Greenfinches and Zebra		" Philippine ...	vii.
" " Finches ...	248	" Sykes' ...	32, 33, 75
" " Spice Birds ...	36	Orioles ...	79
" " the Ruby-throated		<i>Oriolus chinensis</i> ...	vii.
Humming-bird ...	334	" <i>diffusus</i> ...	vii.
" " " Satin Bower-bird ...	63	" <i>melanocephalus</i> ...	vii.
" " " White-fronted or		Ornamental Grass for birds ...	342
Violet Dove ...	393	Ornamentation of Mouth in Young	
<i>Nestor notabilis</i> ...	216	Birds ...	370
New Medal Rule, The ...	81, 116	<i>ornata, Philotis</i> ...	350
" Zealand Birds; British Birds in		Ornate Lorikeet ...	299
" New Zealand ...	244	Orphean Warbler ...	371
" Zealand Parrakeet ...	103, 301	Oryx Weaver ...	192
Nicobar Parrakeet, Blyth's ...	215	<i>oscitans, Anastomus</i> ...	144
Night Heron, Violet-crowned ...	57	Osprey ...	59, 164, 269, 272, 302
Nightingale, 147, 245, 250, 251, 281, 283		<i>ostralegus, Hamatopus</i> ...	127
" Greater ...	371, 372, 373	Ostrich ...	161
" Pekin, 78, 152, 280, 309, 310, 311		<i>Otocampa flaviventris</i> ...	145
" Persian ...	283	Ouzel, Black-throated ...	109
" Virginian 118, 158, 316, 343		" Grey-winged ...	215
		" Tickell's ...	109

	PAGE		PAGE
Ouzel, White-collared ...	145	Parrakeet, Mealy Rosella	102, 299
<i>oreni, Apteryx</i> ...	150	" New Zealand ...	103, 301
Owl ...	214, 201	" Passerine ...	281
" Barn ...	214, 302, 325	" Peunants' 102, 103, 118, 179,	277, 278, 285, 299, 301, 336,
" Brown ...	302	378, 409	
" Burrowing ...	74, 282, 388	" Plumhead ...	187
" Galapagan Barn ...	215	" Port Lincoln ...	103
" Little ...	281, 325	" Quaker ...	146, 182
" Long-eared ...	302	" Red-backed ...	30
" " -horned ...	307, 308	" " -headed Hanging ...	102
" Short-eared ...	302	" " -mantled ...	301, 336
" Spotted Eagle- ...	210	" " Rosella ...	102, 299, 336
" Tawny ...	302	" Redrump, 32, 102, 204, 205, 299,	305, 341, 343
" White ...	98, 214, 302	" Red-vented Blue Bonnet	329
Owls ...	103, 104	" Ring-necked... ..	111, 117
Oxeye Tits ...	97	" Rock Pebbler, or Rock	
Oyster-catcher ...	127, 302	Pepler vi., 299, 301, 336	
Paddy Bird ...	407	" Rosa's ...	187
<i>pacilorhyncha, Anas</i> ...	184	" Rosella, 179, 226, 286, 305,	315, 330, 344
<i>paccephalus gullelni</i> ...	39, 40	" Sclater's Hanging ...	277
Painted Quails ...	321, 323	" Slaty-headed ...	110
<i>Palœornis</i> ...	147, 179	" Stanley ...	300
" <i>caniceps</i> ...	215	" Tovi ...	102, 118
" <i>cyanoccephala</i> ...	147	" Tui ...	140, 307
" <i>cyanoccephalus</i> ...	187	" Turquoise ...	300, 427
" <i>finchi</i> ...	110	" Vernal Hanging- ...	110
" <i>magistrostris</i> ...	145	" White-winged ...	307
" <i>rosa</i> ...	147, 187	" Yellow-checked ...	300
" <i>schisticeps</i> ...	110	" Yellow-naped ...	299
" <i>torquata</i> ...	111	" " -rumped, vi., 277, 301, 335	
" Species of ...	187	Parrakeets ...	79, 178
<i>Palœornithina</i> ...	146	" A Fine Collection of ...	298
Pale Rose-Finch ...	215	" Hybrid ...	145
<i>pallidiceps, Platycercus</i> ...	145	Parrot ...	95
<i>panayensis, Calornis</i> ...	vii.	" All-green ...	185
<i>Pandion carolinensis</i> ...	209	" Blue-fronted Amazon ...	280
" <i>haliaetus</i> ...	59	" Eclectus ...	103
"Papacapim" ...	113	" Finch ...	37, 103, 286, 342
<i>paradisæa, Anthropoides</i> ...	113	" Grey, 40, 103, 117, 156, 185, 186, 188,	189, 218, 307, 332, 333, 344, 345
<i>Paradisæa apoda</i> ...	210	" Jardine's ...	39, 40
Paradise Whydah, ...	71, 156, 186, 187	" Kaka ...	244
Paroquet ...	244	" Kakapoo ...	244
Parrakeet ...	284	" Mountain Ka Ka ...	216
" Alexandrine Rock ...	333	" Racket-tailed ...	vii., 215, 345, 408
" All-green ...	299	" Red-vented ...	102
" Banded ...	254, 285	" Yellow-fronted Amazon ...	46
" Bauer's ...	75, 70	Parrots ...	79, 162, 164, 180, 306, 307
" Barnard's ...	299, 330	Parson Finch, 46, 72, 130, 225, 226, 294, 304	
" Barraband's, 103, 147, 301, 407		Partridge ...	37, 325
" Beautiful ...	31	" Blyth's Hill ...	145
" Black-tailed ...	vi., 179	<i>Parus major</i> ...	79
" Blossom-head, 187, 224, 225, 299		<i>Passer cinnamomeus</i> ...	145
" Blue Bonnet ...	102, 103, 300	" <i>diffusus</i> ...	306
" " -throated Hanging ...	102	" <i>domesticus</i> ...	297
" " -winged... ..	33, 146, 338	" <i>euchlorus</i> ...	306, 335
" Blyth's Nicobar ...	215	" <i>luteus</i> 180, 305, 306, 335, 380	
" Brown's, vii., 81, 101, 117, 277,	301, 407	" <i>swainsoni</i> ...	366
" Burmese Blossom-head ...	187	<i>Passercella iliaca</i> ...	144
" " Slaty-headed ...	110	<i>Passeres</i> ...	163, 168
" Canary-winged ...	306, 307	<i>passerina, Chamæpelis</i> ...	235
" Crimson-wing 102, 179, 277, 299		" <i>Psittacula</i> ...	33
" Golden-crowned ...	301	Passerine Dove ...	235, 247
" " -shouldered, vii., 30, 32,	277, 300, 329	" Parrakeet ...	281
" Hanging ...	277, 278	" Parrakeets nesting ...	338
" " Ceylonese ...	103	" Parrots and Nightingale	245
" Half-moon ...	306	Pastors, Rose-coloured ...	79
" Indian ...	102	" Rosy ...	370
" Javan ...	299	<i>patachonicus, Mimus</i> ...	189
" King ...	102, 179, 277, 299	Patagonian Couure ...	146, 299, 378
" Large Andaman ...	145	" Mocking-bird ...	189
" Lineolated ...	102	<i>patagonicus, Mimus</i> ...	189
" Many-coloured 32, 102, 300, 342,	343, 407	"Patetiva" ...	115
" Masked ...	106, 107, 277	<i>Pavoncella pugnax</i> ...	400
" Master's ...	277	<i>pavonina, Bælarica</i> ...	vii., 159, 160, 195

	PAGE		PAGE
Peaceful Dove...	247	Pigeon, Triangular-Spotted	101, 105, 181
Peacock	40	" White-crowned	24, 93, 94
Pectoral Finch	46, 279	" Wood	37
" Finches, etc.	279	Pileated Finch	102
<i>pectoralis, Munia</i>	279	" Jay	227
Peculiarities in the flight of birds	150	" Pheasant-tailed Jacana	215
Peewit	326	" Pimbleio	94
Pekin Nightingale, 78, 152, 280, 309, 310, 311		Pine Warbler	23, 24
" Robin, ... 40, 102, 152, 158, 280, 407		Pintail	61, 302
<i>Pelargopsis gural</i>	215	" Chilian	183
Penguin, King	112	Pin-tailed Nonpareil, 82, 118, 148, 149,	
<i>penicillata, Philotis</i>	350	156, 157, 179, 194, 220, 315	
<i>Penelopides affinis</i>	vii.	" Sand-Grouse...	vi., 203, 325
<i>pennanti, Apt-nodytes</i>	112	" Whydah	180, 333
Pennant's Parakeet, 102, 103, 118, 179,		<i>pinus, Dendroica</i>	23
277, 278, 285, 299, 301, 336, 378, 409		Piping-Crow	70
<i>peposaca, Metopiana</i>	111, 183, 210	" Lesser White-backed	70
Peregrine	190	Pipit, Berthelot's	238
" Falcon	302	Pipits	161
<i>Pericrocotus brevirostris</i>	208	Pitta	77
Persian Nightingale	283	" Bengal	29
<i>petechia, Dendroica</i>	00	" Indian	215
Petrel, Fork-tailed	330	<i>Pitta brachyura</i>	215
" Storm	302	<i>Pitangus bahamensis</i>	29, 215
Petrels	104	" caudifasciatus	21
<i>Petronia albigularis</i>	297	<i>platinus, Frioniturus</i>	215, 345, 347
" dentata	294, 295, 296, 298	<i>Platycecus</i>	76, 277, 278, 330
<i>Petrophila cinclorhyncha</i>	183	<i>Platycecus</i>	330
<i>pharicenus, Agelaius</i>	00	<i>Platycecus browni</i>	301
<i>phænicoptera Pythia</i>	179, 281	" elegans	336
<i>phænicopterus ruber</i>	210	" erythrophylus	301, 339
<i>phænicotis, Estrilda</i>	120, 171	" eximius	145, 336
<i>Phalacrocorax carbo</i>	129	" flavicollis	301
<i>Phaps chalcoptera</i>	399	" icterotis	300
<i>Phasianus colchicus</i>	184	" pallidiceps	145
Pheasant	37, 151, 325	<i>Plegadis falcinellus</i>	111, 184, 210
" Amherst	374, 375	<i>Ploceide</i>	305
" Golden	194	<i>Ploceopasser rufoscapulatus</i>	303
" Argus	210	<i>Ploceus megarhynchus</i>	145
" Common	184	Plover, Grey	56, 91
" Golden	184, 190, 374, 375	" Lesser Ring	77
" Silver	184	" Ringed	27, 28, 128
" Swinhoe's	184, 210	Plovers	320
<i>Phileterus arnaudi</i>	303	Plumbeous Finch	115
Philippine Oriole	vii.	Plumed Ground-Dove	247
<i>philomela, Daulias</i>	283	Plumhead Parakeet	187
<i>Phlogothus</i>	399	<i>plumifera, Lophophaps</i>	247, 248
" luzonica	132, 399	Pochard	302, 325
<i>Phonipara lepida</i>	179	" American	215
<i>phrygia, Meliphaga</i>	352	<i>polyglottus, Mimus</i>	189
<i>Phyllornis</i>	258	<i>Polytelis</i>	147
" hodgsoni	184	" alexandre	277
<i>Picaria</i>	173	" melanura	179
<i>picta, Aegintha</i>	110	<i>Pomatorhinus ruficollis</i>	145
" <i>Thaumalea</i>	184	" schisticeps	109
<i>picta, Columbula</i>	230	Pond-Heron	183
Pied Dove	133, 194, 236, 247	Pope	102
Pied Crested Cuckoo	183	" Cardinal	375, 378
" Ground Thrush	183	Porphyrios	143, 217
" Mynah	111	Port Lincoln Parakeet	103
" Rock-Thrush	339	<i>prasinia, Erythrura</i>	179
" Shrike	69, 70	Pratincoles	203
" Wagtail, Large	215	<i>principalis, Vidua</i>	180
Pigeon	185, 207	<i>Prioniturus discorsus</i>	vii., 345, 408
" Australian Crested, 108, 109, 150, 151		" lucowensis	345
" Bronze Fruit	vii.	" platurus	215, 345, 347
" Bronze-wing	397, 399	Prolific Redrumps	341
" Crested	111, 184	Proposed General Index	153, 193, 253
" Collared	212	<i>Psaroglossa</i>	51, 52, 53, 54
" Delalande's Fruit	232	" <i>spiloptera</i>	51, 109, 270
" Fruit	237	<i>psaroides, Hypsipetes</i>	209
" Geoffroy's	237	<i>Psephoti</i>	330
" Golden-eyed Fruit	110	<i>Psephotus chrysoterygius</i> , vii., 30, 32,	
" Green Fruit	213	" <i>hematopus</i>	145, 300
" Ground-	399	" <i>multicolor</i>	145, 300
" Rock	151	" <i>pubherrimus</i>	31
" Spotted	111, 184, 210	" <i>xanthorrhous</i>	300
" Tambourine	397		

	PAGE		PAGE
<i>Psittacula passerina</i> ...	33	Ravens ...	238
<i>Psittinus inustus</i> ...	277	Ravens, Crows, Rooks, etc. ...	34
<i>Psophodes crepitans</i> ...	110	Razorbill ...	302
<i>Pteroglossus inscriptus</i> ...	33	Red-billed Weaver ...	254
<i>Ptilonorhynchus violaceus</i> ...	93	" -backed Parrakeet ...	30
<i>Ptilosclera versicolor</i> ... II4, 178, 215, 287		" " Shrike ...	26
<i>Ptilotis</i> ...	349, 350	" -breasted Merganser ...	302
<i>Ptilotis auricomis</i> ...	349	" " Snipe ...	91
<i>chrysops</i> ...	350	" " Thrush ...	273
<i>fusca</i> ...	350	" Cardinal ...	49
<i>leucotis</i> ...	349	" -collared Lorikeet ...	111
<i>ornata</i> ...	350	" -crowned Lorikeet ...	114
<i>penicillata</i> ...	350	" -eyed Babbler ...	383
Puffin ...	125, 126, 302	" -faced Finch ...	179, 403, 410
<i>Puffinus auduboni</i> ...	94	" " Lovebird ...	31, 118, 305
<i>pugnax</i> , <i>Machetes</i> ...	141	" -fronted Amazon ...	103
<i>Pavoncella</i> ...	400	" Grouse ...	118
<i>pulchella</i> , <i>Neophema</i> ...	300	" -headed Finch ...	192
<i>pulcherrimus</i> , <i>Psophodes</i> ...	31	" " Finks ...	192
<i>punctatissima</i> , <i>Strix</i> ...	215	" " Gouldian Finch, 37, 38, 117, 285	
Purple-headed Glossy Starling ...	171	" " Hanging Parrakeet ...	102
" -rumped Sun-bird ...	183, 247	" " Hagnest ...	181
" Sandpiper ...	302	" -mantled Parrakeet ...	301, 336
" Sun-bird ...	180	" " Rosella ...	102, 299, 336
<i>purpureus</i> , <i>Lamprocolius</i> ...	171	" -throated Diver ...	302
<i>Pycnonotus bengalensis</i> ...	215	" -vented Blue-bonnet ...	329
<i>leucotis</i> ...	78	" " Parrot ...	102
<i>Pycnorhis nasalis</i> ...	85	" -winged Starling ...	60
<i>sincensis</i> ...	83	Reddish Egret ...	57, 58
<i>Pyrauga rubra</i> ...	172, 173	Redpoll ...	78, 112, 245
<i>Pyromelana suidevalli</i> ...	192	Redrump, 32, 102, 204, 205, 299, 305, 341, 343	
<i>Pyrhulanda grisea</i> ...	110	Redrumps, How not to breed ...	204
<i>melanocephala</i> ...	215	Redshank ...	91, 203, 204, 302
<i>Pytelia afra</i> ...	179, 403	Red-start ...	221
<i>melba</i> ...	403	" Black ...	373
<i>phænicoptera</i> ...	179, 281	" Indian ...	268
Quail ...	95, 217, 376	" White-capped ...	144
" African Bush ...	407	Reedling, Bearded ...	vi., 286
" Black-breasted ...	366, 377	Reed-Warbler ...	327
" " -throated Bustard ...	317, 318	" " Great ...	373
" Bustard- ...	317, 318	" " Indian Great ...	215
" Button- ...	317	Reeve 141, 142, 143, 144, 217, 400, 401	
" Californian ...	28, 148, 149, 194, 285	Reeve (<i>Pavoncella pugnax</i>) breeding	
" Chinese ...	203, 407	in confinement ...	400
" Chinese Painted ...	325	Reeves ...	203, 204
" Common ...	111	Regent bird ...	vii., 33
" Common Bustard ...	318	<i>regulorum</i> , <i>Balarica</i> ...	viii., 160
" Greater Bustard ...	vi., 318	Reviews, Notices, etc. :	
" " Button- ...	vi., 318, 343, 377	Blaauw (F. E.) Ross's Snow Goose	
" Indian Bustard- ...	318	(<i>Chen rossii</i>) breeding in Captivity ...	240
" " Button- ...	145	Brabburn (J. D.) British Birds in	
" " Jungle ...	407	Captivity ...	369
" Little Bustard- ...	318	Butler (Dr. A. G.) Hints on Cage-	
" " Button- ...	318	birds, British and Foreign ...	331
" Painted ...	321, 323	Butler (Dr. A. G.) Birds' Eggs of	
" Rain ...	vi., 102, 300, 377	the British Isles ...	401
Quails ...	204, 321	Dixon (C.) Open-air Studies of Bird	
Quaker Parrakeet ...	140, 182	Life: Sketches of British Birds	
" " at large ...	181	in their haunts ...	239
<i>Querquedula albigularis</i> ...	183	Finn (F.) Variation in Birds ...	111
<i>versicolor</i> ...	215	Finn (F.) Fancy Waterfowl ...	331
Racket-tailed Parrot ...vii., 215, 343, 408		Flower (Capt. S. S.) The Giza Zoo-	
Rail ...	58, 62	logical Gardens ...	241
" Land ...	203, 217	Harris (H. E.) Essays and Photo-	
" Water ...	203, 217	graphs: Some Birds of the	
" Weka ...	216	Canary Islands and South Africa ...	238
Rails ...	317	Hindle Aviary, Darwin, The ...	243
Rain Quail ...	vi., 102, 366, 377	Hints ...	244
Rains and their effect on Bird Life,		Renshaw (Dr. Graham) The Black	
The late ...	324	Emu ...	242
Rambles among the Wild Birds		Seth-Smith (D.) Parrakeets 146, 277, 329	
(No. II.) A Visit to the Farne		Thompson (B. L.) Who's Who at	
Islands ...	124	the Zoo ...	112
<i>Raptore</i> ...	00	Watkins (W.) The Birds of Tennyson 369	
Rare African Waxbills ...	402	Wiglesworth (J.) St. Kilda and its	
Raven ...	34, 35, 70, 307	Birds ...	330
		<i>rex</i> , <i>Balaeniceps</i> ...	241
		<i>Rhamphastos discolorus</i> ...	247

	PAGE		PAGE
Rhea	101, 161	Rufous-cheeked Thrush, Himalayan	78
<i>rhodopyga, Estrilda</i>	vii., 249, 405	„ chimed Laughing-Thrush	109, 257
<i>Rhodospiza obsoleta</i>	215	„ Dove	231
<i>Rhytidoerops undulatus</i>	183	„ -necked Weaver	156
Ribbon-finch	41, 379	„ Scimitar Babbler	145
Richardson's Skua	302	„ -tailed Finches	179
<i>ricordi, Sporadicus</i>	22	„ Flycatcher	21
Ring Dove	151	„ Grassfinch	407
„ Dotterel	302	Rules of the Avicultural Society	11, 312
„ Plover, Lesser	77	Russ's Weaver	158
„ -necked Parrakeet	111, 117	<i>Ruticilla rufiventris</i>	208
Ringed Finches	179		
„ Guillemot	302	Saffron Finch	73, 77, 280
„ Plover	27, 28, 128	<i>sagra, Myiarchus</i>	21
„ as an Aviary Bird, On the	20	St. Helena Seed-eater	41, 117
<i>Rissa tridactyla</i>	120	„ Waxbill	41, 377
<i>risorius, Turtur</i>	105	Salmon-crest Cockatoo	103
Robin, 26, 103, 244, 273, 274, 275, 371, 379	102, 117, 190, 226	Salvin's Amazon	40
„ Blue	102, 117, 190, 226	Sanderling	91
„ Japanese	374	Sand-Grouse	326
„ Pekin	46, 102, 152, 158, 280, 407	„ Black-bellied	203
Robins	97	„ Pintailed	vi., 203, 325
Rock Dove	241	Sandpiper, Common	203, 302
„ Pebbler Parrakeet	vi.	„ Purple	302
„ Pepler	103, 299, 301, 330	Sandwich Tern	92, 128
„ Pigeon	151	Sanguineous Honey-eater	353
„ Sparrow, Lesser	294, 296	Sapsucker	23
„ Thrush, Blue	198	Satin Bower-bird	63, 64, 190, 285
„ -headed	183	Scaly-breasted Lorikeet	299
„ Pied	339	„ Dove	237, 238
„ Thrushes	201	Scarlet-backed Flower-Peckers	183
Roller	241	„ Ibis	337
„ Burmese	144	„ Tanager	53, 157, 158, 172, 173
„ Indian	72, 73, 284	Scart	302
Rollers	203, 200	Scaup	62, 302
Rook	34, 35, 70	<i>schisticops, Pomatorhinus</i>	100
<i>rosa, Palæornis</i>	147, 187	Scimitar Babbler, Rufous-necked	145
Rosa's Parrakeet	187	Sclater's Hanging Parrakeet	277
Roseate Cockatoo	45	Scoter, Common	302
„ Tern	128	„ Velvet	145
Rose-breasted Grosbeak	79	Sea Eagle	302
„ -coloured Pastor	79	Secretary and the Society's Medal, The	42
<i>rosicollis, Agapornis</i>	178, 183	Seed-eater, Bearded	147, 374
Rosella, 149, 179, 226, 286, 305, 315, 330, 344	102, 299	„ St. Helena	41, 117
„ Mealy	102, 299, 336	<i>Selecoides nigricans</i>	109
„ Red	102, 299, 336	<i>semitorquatus, Barnardius</i>	329
Rosellas and Cockatiels	149	<i>Turtur</i>	106, 212
Rosy-billed Duck	111, 183, 210	Senegal Dove	117, 130, 131, 233, 247
„ -breasted Cockatoo	75	„ Turtle-Dove	100, 107
„ Grosbeak	78	<i>senegalensis, Turtur</i>	107
Rosy-faced Love-bird	183	Sepoy Finch	215
„ Finch	254	Serin	41
„ Pastor	370	„ Finches	402
„ Pastors in London	370	„ Eggs of the	327
Rotche	302	<i>Serinus icterus</i>	327
Royal Tern	92	„ <i>leucopygius</i>	327
<i>ruber, Endocimus</i>	216	Sex of the Bengal Pitta, The	29
„ <i>Phainopterus</i>	216	Sex of Pekin Nightingales, The	309
<i>rubra, Pyrranga</i>	172, 173	Sexual Differences	240
<i>rubitorques, Trichoglossus</i>	111	Shag	302
<i>rubro-nigra, Munia</i>	145	Shama	44, 80, 103, 191, 263, 266, 316, 333
Ruby-throated Humming-bird	334	<i>sharpes, Vinago</i>	213
Ruddy Dove	130	Sharp-tailed Finch	112
„ Flamingo	216	Shearwater, Dusky	94
Ruff, vi., 141, 142, 144, 202, 203, 216, 217, 278, 400, 401	203	„ Maux	95, 302
Ruffs and Reeves	203	Sheldrake	302
<i>rufa, Ardea</i>	57	„ Variegated	216
<i>ruficauda, Bathilda</i>	179	Sheld Duck	302
<i>Ruficaudas</i>	102	Shrike, Bay-backed	215
<i>ruficollis, Pomatorhinus</i>	145	„ Pied	69, 70
<i>rufigularis, Trochalopteron</i>	257	Shrikes	162, 238, 266
<i>rufigularis, Arboricola</i>	145	Short-billed Minivet	268
„ <i>lanthocincla</i>	109	„ -eared Owl	302
<i>rufiventris, Ruticilla</i>	268	Siberian Larks	203
<i>rufoscapiatus, Ploceipasser</i>	303	„ Goldfinch	82, 240
Rufous-bellied Niltava	24, 144	Sibia, Black-headed	255, 257, 258, 259, 260, 382
„ -breasted Accentor	145	Silky Cowbird	172

	PAGE		PAGE
<i>sivatica</i> , Turnix	324	Spotted Eagle-Owl	210
Silverbill	223, 281, 335, 403, 407	" Pigeon	111, 184, 216
Silver-eared Hill-Tit	389	" -wing	51, 54, 100, 270, 277
" Mesia, vi., 83, 84, 144, 181, 379, 380, 382, 383, 384, 385, 387, 388, 389, 390	184	" -wing Stare	53
Silver-eared Pheasant	184	" More about the	270
<i>simplex</i> , <i>Zosterops</i>	180	" Woodpecker	102
Singing Bush-Lark	110	" Sprosser "	283
<i>sineensis</i> , <i>Garrulax</i>	168, 169	Stanley Crane	113
" <i>Pycnorhis</i>	83	" Parrakeet	300
Singing Bush-Lark	110	Starling, 30, 37, 52, 54, 79, 90, 97, 99, 246, 203, 276	181, 407
" Finch, Green	72, 82, 304, 327, 328, 402	" , Andaman	169, 172, 173, 277
" " Grey, 194, 252, 304, 327, 374, 407, 410	78	" , Glossy	170
" " South African Green	215	" , Green Glossy	252
<i>sipahi</i> , <i>Hematospiza</i>	40, 137, 138	" , Indian Satin	103, 169, 170
Siskin	47, 48, 51, 115, 116	" , Long-tailed Glossy	171
" , Hooded	213	" , Purple-headed Glossy	60
<i>Sitagra brachyptera</i>	208	" , Red-winged	236
<i>Sitta castaneiventris</i>	144, 181, 382	Steel-barred Dove	215
Siva, Blue-winged	144, 181	<i>stentoreus</i> , <i>Acrocephalus</i>	93
<i>Sitta cyanoptera</i>	302	" <i>caniaca</i>	128
Skua, Arctic	302	" <i>dougalli</i>	128
" , Great	302	" <i>fluvialis</i>	127
" , Richardson's	110	" <i>macrura</i>	145
Slaty-headed Parrakeet	110	<i>stewarti</i> <i>Emberiza</i>	179
" " Burmese	110	<i>sterni</i> <i>Emberiza</i>	179
" " Scimitar Babbler	100	" <i>bichenovii</i>	91
Slavonian Grebe	202	Stilt, Black-necked	107
Small-billed Mountain Thrush	215	Stint, Little	325
Smew	302	Stock Dove	203, 238, 400
Suipe	102, 202	Stone-curlew	215
" , Red-breasted	01	<i>stoparola melanops</i>	241
Society's Medal, The, 13, 82, 343, 377, 408	302	Stork, Whale-headed	183
Solan Goose	127	" White	302
<i>Somateria mollissima</i>	178	Storm Petrel	184
Some notes on the Crystal Palace Bird Show	340	<i>streperus</i> , <i>Chauleasmus</i>	112
Some notes on the Liothrix	92, 93	<i>striata</i> , <i>Cratichneumon</i>	215
Sooty Tern	102	Striated Babbler	174, 176, 177
South African Birds	78	<i>striatus</i> , <i>Colinus</i>	174, 175
" Green Singing Finch	305	<i>Strix flammea</i>	214
Sparrow	37, 97, 99, 294, 295, 296, 298, 305	" <i>punctatissima</i>	215
" , Arabian Golden	101, 102	<i>Strophoparus</i> , <i>Acceptor</i>	145
" , Brazilian	145	<i>sturnipastor contra</i>	111
" , Cinnamon Tree-	144	<i>sturnide</i>	53, 54
" , Fox...	305, 335	<i>sturnus vulgaris</i>	180
" , Golden	300	Sugar-bird	180
" , Grey-headed	97, 245, 326	" , Blue	75
" , Hedge	295, 297	Sulphur-crested Cockatoo, Great	184
" , House	46, 77, 249, 250, 285, 304	Summer Duck	60
" , Java	204, 290	" Warbler	214
" , Lesser Rock	298, 305	Sun-bird	180
" , Swainson's	102	" , Purple	183, 247
" , White Java	37, 38, 82, 117	" , -rumped	24, 144
" , Yellow	335, 386, 388	<i>sundara</i> , <i>Niltava</i>	102
" , -headed	294	<i>sunderalli</i> , <i>Pyromelana</i>	110
" , -throated	203, 293, 302, 307, 308	<i>superba</i> , <i>Mentura</i>	184
Sparrowhawk	147	<i>superciliosa</i> , <i>Anas</i>	306
<i>Spathopterus alexandrae</i>	187	<i>swainsoni</i> , <i>Passer</i>	114, 158, 179, 180, 299
Species of <i>Palæornis</i>	376	Swainson's Lorikeet	37, 92, 97
Spectacle-bird	213	" Sparrow	210
<i>Spermestes cucullata</i>	115	Swallow	302
<i>Spermophila gutturalis</i>	115	Swan, Black	161
" <i>lineola</i>	115	" , Wild	210
" <i>nigr. rufa</i>	115	Swifts	184, 210
" <i>plumbea</i>	36, 37, 407	<i>swinhoei</i> , <i>Euplecamus</i>	184, 216
Spice Bird	19	Swinhoe's Pheasant	42
<i>Spindalis zena</i>	348, 349	Sydney Waxbill	32, 33, 75
Spinebill	183	Sykes' Oriole	214
<i>spinicauda</i> , <i>Dafila</i>	203, 241	<i>Syrnium variegata</i>	216
Spoonbill	51, 109, 270	<i>taigooor</i> , <i>Turnix</i>	212, 235, 236, 398, 399
<i>spiloptera</i> , <i>Psaroglossa</i>	246	Tambourine Dove	397
<i>Spodiopar</i>	22	" Pigeon	125, 126
<i>Sporadinus ricordi</i>	184, 216	" Tamminies "	280
Spotted-billed Duck	04	Tanager	
" Bower-bird			

	PAGE
Tanager, Blue-shouldered	102
" , Scarlet	53, 157, 158, 172, 173
" , Tricolour	180
" , Violet	316, 333, 388
" , White-capped	180
" , Yellow	180
Tanagers	180
<i>tanki</i> , Turnix	145, 317, 318, 319, 323, 343, 377
Tasmanian Magpie	70, 71
Tawny Owl	302
Teal	302
" , Andaman	183
" , Grey	215
<i>temminckii</i> , <i>Myiophonus</i>	196, 199, 201, 270
Temminck's Pied Hornbill	177
Temminck's Tragopan	95, 96
" , Whistling-bird	100
<i>temporalis</i> , <i>Egithia</i>	82
Teneriffe Blue Tit	230
<i>tenuirostris</i> , <i>Acanthorhynchus</i>	348
Teydean Chaffinch	239
Tern	50
" , Arctic	127, 128, 302
" , Bridled	92, 93
" , Common	128
" , Lesser	92
" , Noddy	92, 93, 94
" , Roseate	128
" , Royal	92
" , Sandwich	92, 128
" , Sooty	92, 93
Terius	124
<i>Thaumalea picta</i>	184
<i>Therocoryx zeylonicus</i>	145
Thrush	20, 70, 99
" , Babbling-	53
" , Blue	vi., 201, 339, 340
" , -headed Rock	183
" , Rock	198
" , Whistling	144, 196, 197, 200, 201
" , Himalayan Rufous-cheeked	78
" , Missel	98, 102
" , Pied Ground-	183
" , Rock	339
" , Red-breasted	273
" , Rock	201
" , Rufous-chinned Laughing	100
" , Small-billed Mountain	215
" , Whistling	100
Thrushes	97, 245, 246
<i>Tichodromia muraria</i>	215
Tickell's Flower-pecker	145
" , Onzel	109
Tiger Bittern	214
<i>tigrinus</i> , <i>Turtur</i>	130
<i>Tierisoma leucophum</i>	214
<i>tiphia</i> , <i>Egithina</i>	268
<i>trica</i> , <i>Brologerys</i>	330
Tit, Blue	97
" , Coal or Cole	97, 325
" , Long-tailed	191, 320
" , Marsh	80
" , Oxeys	97
" , Tenerife Blue-	230
Tits	97, 325, 335
Titmice, Long-tailed	373
Titmouse, Great	79
Tobacco Dove	24
<i>Tonopygia castaneotis</i>	220
Togography of a Bird, On the	160
<i>tonquata</i> , <i>Palceornis</i>	111
Toucan	118
" , Ariel	32
" , Green-billed	181, 247
" , Lettered	32
Tovi Parakeet	102, 118

	PAGE
Tragopan, Cabot's	95, 96
" , Temminck's	95, 96
Tragopans in Captivity	95
Tree Creeper	79
" , -Duck	62, 214
" , -Pie	284
" , Indian	103
" , Wandering	284
" , Sparrow, Cinnamon	145
Triangular Spotted Pigeon	104, 105, 184
<i>Trichoglossus</i>	114
" , <i>novae-hollandie</i>	114
" , <i>rubritorques</i>	111
<i>tricolor</i> , <i>Ardea</i>	58
Tricolor Tanager	180
Tricolour Amazon	103
Tri-coloured Mannikin	286
<i>tridactyla</i> , <i>Rissa</i>	126
<i>Tringa minuta</i>	107
<i>tristis</i> , <i>Chrysomitris</i>	115, 116
<i>Trochalepteron lineatum</i>	79
" , <i>nigricinctum</i>	109
" , <i>rufigulare</i>	257
<i>triole</i> , <i>Uria</i>	126
" , var. <i>ringvia</i> , <i>Uria</i>	302
Troupials	303
Tufted Duck	302
Tui	244, 258
" , Parakeet	140, 307
<i>Turdus albicinctus</i>	145
" , <i>atrigrularis</i>	109
" , <i>bouboul</i>	215
" , <i>migratorius</i>	273
" , <i>unicolor</i>	109
Turkey, White	40
<i>Turnix</i>	317, 318
" , <i>dussumieri</i>	318, 323
" , <i>silvatica</i>	324
" , <i>taigoor</i>	317, 318, 319, 323, 324
" , <i>tanki</i> , 145, 317, 318, 319, 323, 343, 377	
" , On the breeding in Cap-	
" , tivity of	317
Turnstone	56, 91, 302
Turquoise Parakeet	300, 407
Turtle-Dove	80, 241
" , Barbary	105, 106, 107, 109, 130
" , Blue-headed	130
" , British	109
" , Damara	233, 234
" , Deceptive	237
" , Dwarf	111
" , Senegal	107
" , Vinaceous	111
" , Half-collared	106, 107
<i>Turtur auritus</i>	241
" , <i>damarensis</i>	233, 234
" , <i>decepiens</i>	237
" , <i>humilis</i>	111, 130
" , <i>risorius</i>	105
" , <i>semitorquatus</i>	106, 212
" , <i>senegalensis</i>	107
" , <i>tigrinus</i>	130
" , <i>vinaceus</i>	111
Twelve-wire Bird of Paradise	160
<i>Tympanistria tympanistria</i>	212, 235
<i>Tyrannus dominicensis</i>	93
Tyrant Bird	93
<i>undulatus</i> , <i>Rhytidoceros</i>	183
<i>unicolor</i> , <i>Turdus</i>	109
Upland Goose	184
<i>Uria troile</i>	126
" , var. <i>ringvia</i>	302
<i>Urocissa</i>	284
" , <i>erythrorhyncha</i>	307
" , <i>occipitalis</i>	284
<i>Uroloncha striata</i>	112
Van Diemen's Cassowary	243

	PAGE		PAGE
Varied Lorikeet, vii., 114, 178, 215, 287, 290, 291		Waxbill, Violet-eared	402, 403
<i>variegata</i> , <i>Tudorina</i> ...	216	" Yellow-cheeked	376
Variegated Sheldrake ...	216	Waxbill, Zebra ...	82, 225, 254
<i>varius</i> , <i>Hierococyx</i> ...	173, 183	Waxbills ...	179, 192, 210, 279, 338
Velvet Scoter ...	145	" African ...	41
Verditer Flycatcher ...	215	" in a Cage ...	223
Vernal Hanging-Parrakeet	110	Waxwing, vi., 357, 358, 359, 360, 362, 363,	
<i>vernalis</i> , <i>Loriculus</i> ...	110	" ...	364, 365, 366
Verreaux's Guinea-fowl ...	111	" Bohemian ...	357, 365
<i>versicolor</i> , <i>Philosciera</i> ...	114, 178, 215, 287	" nesting in a British Aviary	357
" <i>Quercedula</i> ...	215	Weaver ...	49, 156, 343
<i>victoria</i> , <i>Alcedo</i> ...	103	" -bird, Black-headed ...	215
<i>Vidua principalis</i> ...	180	" " Large-billed ...	145
<i>violata</i> , <i>Dendrocygna</i> ...	214	" " Golden ...	30
Vinaceous Turtle-Dove ...	111	Weaver, Grenadier ...	192
<i>vinaceus</i> , <i>Turtur</i> ...	111	" Oryx ...	192
<i>Vinago delalandei</i> ...	232	" Red-billed ...	254
" <i>sharpi</i> ...	213	" Rufous-necked ...	150
<i>vinaceous</i> , <i>Nectiardea</i> ...	57	" Russ's ...	158
" <i>Philonorhynchus</i> ...	63	Weavers, 77, 192, 239, 260, 302, 303, 304,	
Violet-crowned Night Heron ...	57	" ...	305, 403
" Dove 72, 231, 232, 393, 394, 395, 396,		" Weaving ...	77
397		Weka Rail ...	216
" -eared Waxbill ...	402, 403	Western Yellow-winged Laughing	
" Tanager ...	316, 333, 388	Thrush ...	100
<i>viridescens</i> , <i>Brodiae</i> ...	307	Whale-headed Stork ...	241
Virginian Cardinal 33, 34, 41, 40, 102, 100,		What bird? ...	249
308, 309, 375, 376, 378, 407		Whimbrel ...	302
" Nightingale 118, 158, 316, 343		Whistling-bird ...	196
<i>vireo</i> , <i>Anthropoides</i> ...	390	" " Himalayan ...	106
Visit to the Farne Islands, A. ...	124	" " Temminck's ...	196
<i>vittatus</i> , <i>Lanius</i> ...	215	" Duck ...	62
<i>vulgaris</i> , <i>Sturnus</i> ...	53, 54	" Thrush ...	196
Vultures ...	103	" " Blue, 144, 196, 197,	
Waders ...	202	200, 201	
" in Captivity ...	202	White-backed Piping Crow, Lesser	70
Wagtail, Grey- ...	230	" -bearded Honey-eater	350, 352
" Large Pied ...	215	" -bellied Drongo ...	183
Wagtails ...	97, 161, 203	" -breasted Sea-Eagle ...	183
<i>wallacei</i> , <i>Eos</i> ...	145	" -capped Bunting ...	145
Wallace's Lory ...	145	" " Redstart ...	144
Wall-creeper ...	215	" " Tanager ...	180
Wandering Tree-Pie ...	284	" Cockatoo ...	371
Warbler, Blue-throated ...	241, 371, 373	" -collared Ouzel ...	145
" Flycatcher ...	215	" Crane, Asiatic ...	195
" Garden ...	97, 371	" -crowned Pigeon ...	24, 93, 94
" Grasshopper ...	26	" -eared Bulbul ...	378
" Great Reed ...	373	" " Honey-eater ...	49
" Orphean ...	371	" " Conure ...	209
" Pine ...	23, 24	" Egret ...	56, 57
" Reed ...	327	" -fronted Dove ...	vi., 231, 393
" Summer ...	60	" -headed Mannikin ...	179
" Yellow-throated ...	23, 24	" Heron ...	56
Warblers ...	60	" Ibis ...	111, 184
<i>wardi</i> , <i>Geocichla</i> ...	183	" Jackdaw ...	103
Warty-faced Honey-eater ...	352	" Java Sparrow ...	37, 38, 82, 117
Waterfowl ...	264, 325	" -naped Honey-eater ...	348, 349
Waterhens ...	164	" Owl ...	98, 214, 302
Water Rail ...	203, 217	" -plumed Honey-eater ...	350
Wattled Honey-eater ...	110	" Stork ...	183
Waxbill ...	vii., 344, 357, 403	" -tailed Eagle ...	302
" African ...	240	" -throated Finch ...	102, 147, 315
" Amaduvade ...	222	" Turkey ...	40
" Australian ...	43, 44, 45, 82	" -winged Parrakeet ...	307
" Black-necked ...	226	" " Zenaida Dove	82, 131
" Blue ...	179, 403	Whitethroat ...	209
" " -breasted 120, 121, 122, 123		" " Greater ...	295
" " Common ...	249	" " Lesser ...	209
" " Amaduvade ...	304	Whooper ...	302
" " Crimson-eared ...	120	Whydah ...	49, 72, 157, 344
" " -rumped ...	240	" Long-tailed ...	279
" Grey 150, 157, 226, 249, 344, 377		" Paradise ...	71, 156, 186, 187
" Green Amaduvade ...	304	" Pin-tailed ...	186, 333
" Orange-checked, 41, 118, 223,		Whydahs ...	403
224, 377, 410		" nesting ...	71
" St. Helena ...	41, 377	Wigeon ...	302
" Sydney ...	42	Wild Birds, Rambles among the	
		(No. II.)	124

	PAGE
Wild Duck	183, 302
" Australian	184
" Swan	302
Willett	61
Willow-Wren	67
Winter Gull	302
Wintering Cockatoos, etc.	75
" Foreign Finches out-of-	
doors	41
Woodcocks	202
Woodlark	147
Woodpecker, Fulvous-breasted Pied	183
" , Golden-backed	145
" , Greater-spotted	23
" , Green	37, 230
" , Hairy	23
" , Spotted	102
Woodpeckers	104
Wood Pigeon	37
" -Swallow, Ashy	215
Wren, Blue	15, 44, 45, 82
" , Golden-crested	21, 23, 373
" , Willow	67
Wrens	77, 79
Wryneck	325
<i>Xantholema hamatocephala</i>	183
<i>xanthorrhous, Psephotus</i>	300
Yellow-bellied Liothrix	370
" -breasted Robin	103
" Budgerigar	36, 101, 224
" Bulbul, Black-crested	145
" Bunting	135, 260
" -cheeked Parrakeet	300
" " Waxbill	370
" -crested Cockatoo	187
" -eyed Babbler	83, 383
" -faced Honey-eater	350

	PAGE
Yellow-fronted Amazon Parrot	40
" -headed Sparrow	102
" Iora	208
" -naped Amazon	70
Yellow-naped Parrakeet	209
" -plumed Honey-eater	350
" -rumped Parrakeet, vi	277, 301, 335
" Sparrow	335, 380, 388
" Tanager	180
" -throated Sparrow	204
" " Warbler	23, 24
" -tufted Honey-eater	349
" -winged Laughing-Thrush,	
Western	109
Yellowhammer	37, 181, 245
Yellowshanks	61
Young birds feeding nestlings	38
Zebra Dove	82, 107, 247
" Finch, 38, 102, 157, 220, 221, 248,	
249, 280, 327, 407	
" Waxbill	82, 225, 254
<i>zema, Spindalis</i>	19
<i>Zenaida</i>	300
" aurita	108, 184
Zenaida Dove, White-winged	82, 131
<i>Zeylonica, Arachnechthra</i>	180, 183
" Cinnerys	247
<i>zeylonicus, Thericeryx</i>	145
<i>zomarius, Barnardius</i>	329
<i>Zonogastis melba</i>	403
<i>Zosterops</i>	180, 224, 225
" japonica	180
" simplex	180
Zosterops; Blossom-heads; Bud-	
gerigars	224
Zoological Gardens, Bird Notes from	
the	109, 144, 183, 215

INDEX TO NESTING NOTES.

	PAGE		PAGE
Amaranth Finch	406	Finch, Amaranth	406
<i>Ampelis garrula</i>	357	.. Bib-	406
<i>Anthropoides virgo</i>	390	.. Black-headed Gouldian	37
<i>Apteryx mantelli</i>	150	.. Green Singing	72, 78 304, 402
Apteryx, Mantell's	150	.. Grey Singing	252, 304, 374, 407
<i>argentauris, Mesia</i>	379	.. Green	248
Australia Crested Pigeon ..	108	.. Zebra	248
Barbary Turtle-Dove	106	<i>garrula, Ampelis</i>	357
Barnard's Parrakeet	336	Goldfinch	72
Bengali	407	Gouldian Finch, Black-headed	37
Bib-finch	406	Greater Button-Quail	317
Black-breasted Quail	366, 407	Green Cardinal	39
.. headed Gouldian Finch	37	.. -finch	248
Bleeding-heart Dove	132	.. Singing Finch	72, 78, 304, 402
Blue-winged Parraquet	338	Grey Singing Finch	252, 304, 374, 407
Bower-bird, Satin	63	Half-collared Turtle-Dove	106
Bronze Mannikin	407	Hybrids :	
Budgerigar	29, 148	Bearded Seadeater x Canary	147
Bustard-Quail, Indian	317	Bronze Mannikin x Bengali	407
Button-Quail, Greater	317	Bronze Mannikin x Bengali	407
Californian Quail	148	x Bengali	407
Cape Canary	222	<i>Estrilda rhodopyga</i> x	
Cardinal, Green	39	<i>E. cinerea</i>	405
.. Virginian	375	Green Singing Finch x Canary	78
<i>cinerea, Estrilda</i>	405	Green Singing Finch	x Goldfinch 72
Cockatiel	149	Green Singing Finch	x Grey Singing Finch 304
Cordon Bleu	338	Grey Singing Finch x Canary	407
<i>coromandelica, Coturnix</i>	336	Mannikin x Cape Canary	222
<i>Coturnix coromandelica</i>	366	Necklace x Senegal Dove	107
Crane, Demoiselle	333, 390	Indian Bustard-Quail	317
Crested Pigeon, Australian	108	<i>jamaicensis, Leptoptila</i>	393
Cutthroat	370	<i>Leptoptila jamaicensis</i>	393
Damara Turtle-Dove	233	<i>lophotes, Ocyphaps</i>	108
Demoiselle Crane	333, 390	<i>luzonica, Phlogœnas</i>	132
Diamond Dove	280	Mannikin	222
Dove, Barbary Turtle-	106	.. Bronze	407
.. Bleeding-heart	132	<i>mantelli, Apteryx</i>	150
.. Damara Turtle-	233	Mantell's Apteryx	150
.. Diamond	280	Many-coloured Parrakeet	300, 342
.. Half-collared Turtle-	106		
.. Necklaced	130		
.. Senegal Turtle-	107		
.. Violet	393		
.. White-fronted	393		
<i>Estrilda cinerea</i>	405		
.. <i>rhodopyga</i>	405		

	PAGE		PAGE
<i>Mesia argentauris</i>	379	Rock-pepler Parrakeet ..	336
<i>Mesia</i> , Silver-eared	379	Rosella.. .. .	299, 305
<i>Merula migratoria</i>	273		
<i>migratoria</i> , <i>Merula</i>	273		
<i>multicolor</i> , <i>Psephotus</i> ..	300		
		Satin Bower-bird	63
Necklaced Dove	130	<i>semitorquatus</i> , <i>Turtur</i> ..	106
		Senegal Turtle-Dove	107
<i>Ocyphaps lophotes</i>	108	<i>senegalensis</i> , <i>Turtur</i> ..	107
		Silver-eared <i>Mesia</i>	379
Paddy Bird	407	Singing-Finch, Green ..	72, 78, 304, 407
Parrakeet, Barnard's	336	" " , Grey	252, 304, 374, 407
" Many-coloured	342	Spice Bird	36
" Quaker	181		
" Redrump	299, 305, 341	<i>tanki</i> , <i>Turnix</i>	317
" Rock-Pepler	336	Temminck's Tragopan ..	96
" Rosella	299, 305	<i>tigrinus</i> , <i>Turtur</i>	130
" Yellow-rumped	335	Tragopan, Temminck's ..	96
Parraquet, Blue-winged ..	338	<i>Turnix tanki</i>	317
<i>Pavoncella pugnax</i>	400	Turtle-Dove, Barbary ..	106
<i>Phlogœnas luzonica</i>	132	" " , Damara	233
Pigeon, Australian Crested	108	" " , Half-collared ..	106
<i>Psephotus multicolor</i> ..	300	" " , Senegal	107
<i>Ptilonorhynchus violaceus</i> ..	63	<i>Turtur risorius</i>	105
<i>pugnax</i> , <i>Pavoncella</i>	400	" <i>semitorquatus</i>	106
		" <i>senegalensis</i>	107
		" <i>tigrinus</i>	130
Quail, Black-breasted	366, 407	<i>violaceus</i> , <i>Ptilonorhynchus</i> ..	63
" Californian	148	Violet Dove	393
" Greater Button-	317	Virginian Cardinal	375
" Indian Bustard	317	<i>virgo</i> , <i>Anthropoides</i>	390
" Rain	366, 407		
Quaker Parrakeet	181		
		Waxwing	357
Rain Quail	366, 407	White-fronted Dove	393
Redpoll	78		
Redrump	299, 305, 341	Yellow-rumped Parakeet ..	335
Reeve	204, 400		
<i>rhodopyga</i> , <i>Estrilda</i>	405		
<i>risorius</i> , <i>Turtur</i>	105		
Robin	273	Zebra Finch	248

W. T. MOULTON & Co.,
PRINTERS,
4, CHURCH STREET, BRIGHTON.



THE JOURNAL OF THE AVICULTURAL SOCIETY.

CONTENTS.

	PAGE
Officers for the year 1902-1903.	
List of Members	I
Rules of the Avicultural Society	II
The Society's Medal	13
The Blue Wren (<i>with coloured plate</i>), by REGINALD PHILLIPPS ...	15
Field Notes on some Bahama Birds, Part II. (<i>with two plates</i>) by J. L. BONHOTE, M.A.	19
The Rufous-bellied Niltava or Fairy Blue Chat, by RUSSELL HUMPHRYS	24
The Ringed Plover as an Aviary Bird, by P. W. FARMBOROUGH, F.Z.S., F.E.S.	26
The Sex of the Bengal Pitta	29
CORRESPONDENCE: Curious Nesting - place of Budgerigar: The Golden-shouldered Parrakeet: The Lettered Aracari, Orioles, etc.: Ravens, Crows, Rooks, etc.: Nesting of Spice-birds: British Bird Notes: Breeding Gouldian Finches, etc.: Young Birds Feeding Nestlings: Jardine's Parrot: Wintering Foreign Finches out-of- doors: The Secretary and the Society's Medal: Improvements in the Magazine	29
Post Mortem Examinations	45

LONDON:

R. H. PORTER, 7, PRINCES ST., CAVENDISH SQUARE, W.

NOTE.—A new volume commences every November.

II.

THE AVICULTURAL SOCIETY.



All persons wishing to join the AVICULTURAL SOCIETY are requested to communicate with the Hon. Secretary.

NOTICES TO MEMBERS.

The Subscription to the Avicultural Society is 10/- per annum, due on the 1st of November in each year, and is payable in advance. The entrance fee is 2/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

All MSS. for publication in the Magazine (except cases for the Society's Medal), and Books for review, should be addressed to the Editor, Mr. D. SETH SMITH, Glengarry, Canning Road, Addiscombe, Surrey.

All other correspondence, cases for the Medal, Subscriptions, and Advertisements, should be sent to the Honorary Secretary, Mr. R. PHILLIPPS, 26, Cromwell Grove, West Kensington Park, London, W. Any change of address should be at once notified to the Secretary.

Advice is given, *by post*, by members of the Council to members of the Society, upon all subjects connected with Foreign and British birds. All queries are to be addressed to the Hon. Secretary. Those marked "Private" will not be published.

The Magazine is published by Mr. R. H. PORTER (7, Princes Street, Cavendish Square, W) to whom all orders for extra copies, back numbers, and bound volumes (accompanied by remittance) should be addressed.

Cases for binding Vol. VIII. can now be obtained, post free and carefully packed, for 1/3 each, from the Publisher, who also undertakes the binding of the Magazine (including case) for 2/-, plus packing and postage, =8d.

BOUND COPIES OF THE "AVICULTURAL MAGAZINE."

The following can be obtained from the Publisher at the prices given below. Postage 6d. per volume extra:

Vol. II., to members, 6/-; to the public, 8/6.

Vol. III. & IV., each, to members, 12/6; to the public, 16/-.

Vols. V. to VII., 10/6 each to members; 12/6 each to the public.

Vol. VIII., 14/- to members; 17/6 to the public.

Back monthly numbers 1/6 each, by post 1/7.

Special Notice.—The following offer is made to Members, and will hold good to the 31st January, 1903

If two back volumes be purchased, a rebate of 10 per cent. will be allowed on the above prices, if three or more, 15 per cent.

Less than ten copies of Vols. III. and IV. remain in stock.

NEW MEMBERS.

The Hon. WALTER B. WROTTESELY, F.Z.S., 8, Herbert Crescent, S.W.

The Lady EVELYN COTTERELL, Garnons, Hereford.

La Duchessa di SAN GERMANO & CALABRITTO, 10, Emperor's Gate, S.W.

Mr. JOSÉ M. de MANCHA, 1, Gledhow Gardens, South Kensington, S.W.

Mr. FRANK HARRIS, F.R.I.S., Vernon Park, Stockport.

Mr. HAROLD HOUGH, Wellington Road South, Stockport.

Mr. SAMUEL LOWE, 14, Banks Lane, Stockport.

Mr. COUNCILLOR J. BRELSFORD, 75, Wellington Road North, Stockport.

Major HORACE A. TERRY, M.B.O.U., The Lodge, Upper Halliford, Shepperton.

Mr. HERBERT GOODCHILD, 119, Gloucester Road, Regent's Park, N.W.

Mr. L. G. CHIOZZA, Casa Cara, Beechwood Avenue, Oatlands, Weybridge.

Mr. F. H. RUDKIN, Belton, Uppingham.

(Continued on page iii. of cover).

NEW SERIES.

MONTHLY.

DECEMBER, 1902.

Vol. 1. No. 2.

Price 1s. 6d.

Members' Annual Subscription, 10 - ; payable in advance.



THE JOURNAL OF THE AVICULTURAL SOCIETY.

CONTENTS.

	PAGE
The Hooded Siskin (<i>with coloured plate</i>) by the Rev. H. D. ASTLEY, M.A.	47
The Spotted-wing, by Dr. A. G. BUTLER	51
Field Notes on some Bahama Birds, Part III. (<i>with two plates</i>) by J. L. BONHOTE, M.A.	54
The Nesting of the Satin Bower-bird, by Mrs. JOHNSTONE	63
The Pied Shrike, by the Rev. C. D. FARRAR	69
The Tasmanian Magpie	70
CORRESPONDENCE: Heating for aviary; Whydahs nesting etc.:	
The Indian Roller; Green Bulbuls; Burrowing Owl in a fit:	
The Lettered Aracari; Wintering Cockatoos etc.; Crows, Rooks	
etc.; Yellow-naped Amazons; The misuse of the mealworm:	
Hardy birds; Liothrix, Redpoll etc.; Birds for outdoor aviary:	
British bird notes; A feather-picking Shama; The new Medal	
rule	71
The Society's Medal	82
Post Mortem Examinations	82

LONDON:

R. H. PORTER, 7, PRINCES ST., CAVENDISH SQUARE, W.

NOTE.—A new volume commences every November.

II.

THE AVICULTURAL SOCIETY.



All persons wishing to join the AVICULTURAL SOCIETY are requested to communicate with the Hon. Secretary.

NOTICES TO MEMBERS.

The Subscription to the Avicultural Society is 10/- per annum, due on the 1st of November in each year, and is payable in advance. The entrance fee is 2 6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

All MSS. for publication in the Magazine (except cases for the Society's Medal), and Books for review, should be addressed to the Editor, Mr. D. SETH-SMITH, Glengarry, Canning Road, Addiscombe, Surrey.

All other correspondence, cases for the Medal, Subscriptions, and Advertisements, should be sent to the Honorary Secretary, Mr. R. PHILLIPPS, 26, Cromwell Grove, West Kensington Park, London, W. Any change of address should be at once notified to the Secretary.

Advice is given, *by post*, by members of the Council to members of the Society, upon all subjects connected with Foreign and British birds. All queries are to be addressed to the Hon. Secretary. Those marked "Private" will not be published.

The Magazine is published by Mr. R. H. PORTER (7, Princes Street, Cavendish Square, W.) to whom all orders for extra copies, back numbers, and bound volumes (accompanied by remittance) should be addressed.

Cases for binding Vol. VIII. can now be obtained, post free and carefully packed, for 1/3 each, from the Publisher, who also undertakes the binding of the Magazine (including case) for 2/-, plus packing and postage, =8d.

BOUND COPIES OF THE "AVICULTURAL MAGAZINE."

The following can be obtained from the Publisher at the prices given below. Postage 6d. per volume extra :

Vol. II., to members, 6/-; to the public, 8 6.

Vol. III. & IV., each, to members, 12/6; to the public, 16/-.

Vols. V. to VII., 10/6 each to members; 12/6 each to the public.

Vol. VIII., 14/- to members; 17/6 to the public.

Back monthly numbers 1/6 each, by post 1/7.

Special Notice.—The following offer is made to Members, and will hold good to the 31st January, 1903.

If two back volumes be purchased, a rebate of 10 per cent. will be allowed on the above prices, if three or more, 15 per cent.

Less than ten copies of Vols. III. and IV. remain in stock.

(Continued on page iii. of cover.)

NEW SERIES.

MONTHLY.

JANUARY, 1903.

Vol. 1. No. 3.

Price 1s 6d.

Members' Annual Subscription, 10 - ; payable in advance.



THE JOURNAL OF THE AVICULTURAL SOCIETY.

CONTENTS.

	PAGE
The Yellow- or Golden eyed Babbler, (<i>with coloured plate</i>)	
by REGINALD PHILLIPPS	83
Field Notes on some Bahama Birds, Part IV.. (<i>with two plates</i>)	
by J. LEWIS BONHOTE, M.A.	87
Tragopans in Captivity, by W. H. ST. QUINTIN, F.Z.S., M.B.O.U.	95
Birds in Towns, by JOHN SERGEANT	97
A Modern Noah, by the Rev. C. D. FARRAR	100
Notes on Doves. Part II., by ROSIE ALDERSON	104
Bird Notes from the Zoological Gardens	109
REVIEWS—Variations in Birds	111
“Who’s who at the Zoo”	112
Bird Notes	114
CORRESPONDENCE—Naming Brazilian Birds : “The Hooded Siskin”:	
The new Medal Rule	115
Post Mortem Examinations	117

LONDON :

R. H. PORTER, 7, PRINCES ST., CAVENDISH SQUARE, W.

NOTE.—A new volume commences every November.

II.

☛ All Subscriptions should be sent to the Honorary Secretary.

THE AVICULTURAL SOCIETY.



All persons wishing to join the AVICULTURAL SOCIETY are requested to communicate with the Hon. Secretary.

NOTICES TO MEMBERS.

The Subscription to the Avicultural Society is 10/- per annum, due on the 1st of November in each year, and is payable in advance. The entrance fee is 2 6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

All MSS. for publication in the Magazine (except cases for the Society's Medal), and Books for review, should be addressed to the Editor, Mr. D. SETH-SMITH, Glengarry, Canning Road, Addiscombe, Surrey.

All other correspondence, cases for the Medal, Subscriptions, and Advertisements, should be sent to the Honorary Secretary, Mr. R. PHILLIPPS, 26, Cromwell Grove, West Kensington Park, London, W. Any change of address should be at once notified to the Secretary.

Advice is given, *by post*, by members of the Council to members of the Society, upon all subjects connected with Foreign and British birds. All queries are to be addressed to the Hon. Secretary. Those marked "Private" will not be published.

The Magazine is published by Mr. R. H. PORTER (7, Princes Street, Cavendish Square, W.) to whom all orders for extra copies, back numbers, and bound volumes (accompanied by remittance) should be addressed.

Cases for binding Vol. VIII. can now be obtained, post free and carefully packed, for 1/3 each, from the Publisher, who also undertakes the binding of the Magazine (including case) for 2/-, plus packing and postage, 8d.

BOUND COPIES OF THE "AVICULTURAL MAGAZINE."

The following can be obtained from the Publisher at the prices given below. Postage 6d. per volume extra :

Vol. II., to members, 6/-; to the public, 8 6.

Vol. III. & IV., each, to members, 12/6; to the public, 16/-.

Vols. V. to VII., 10/6 each to members; 12 6 each to the public.

Vol. VIII., 14/- to members; 17/6 to the public.

Back monthly numbers 1/6 each, by post 1/7.

Special Notice.—The following offer is made to Members, and will hold good to the 31st January, 1903.

If two back volumes be purchased, a rebate of 10 per cent. will be allowed on the above prices, if three or more, 15 per cent.

Less than ten copies of Vols. III. and IV. remain in stock.

NEW MEMBERS.

MR. BERTRAM S. OGLE, M.B.O.U.; Steeple Aston, Oxford.

MR. HENRY SCHERREN, F.Z.S., M.B.O.U.; 9, Cavendish Road, Harringay, N.

MR. J. J. ARMITAGE; Lindum House, Burns Street, Nottingham.

MR. A. ROGERSON; Fleurville, Ashford Road, Cheltenham.

The Rev. R. H. WILMOT; Poulton Vicarage, Fairford.

MR. J. G. BARBER; Waverley House, Melton Road, Leicester.

MR. W. TOMES; Glenmoor, Billing Road, Northampton.

MR. C. S. REID; 4, Howard Park Drive, Kilmarnock.

(Continued on page iii. of cover).

III.

CANDIDATES FOR ELECTION.

- Miss WALKER; Hanley Lodge, Corstorphine, N.B.
Proposed by Captain RICE.
- Mrs. WRIGHT; Hampsthwaite Hall, Ripley, Yorks.
Proposed by Mrs. STANFORTH
- Miss EMPSON; 1, Mill Hill Road, Barnes.
Proposed by Mrs. HAMILTON.
- Mr. CHASE; 18, Hungerford Avenue, Crew.
Proposed by Mr. ASTLES.
- Miss JARDINE; 133, Cheyne Walk, Chelsea; and
 Captain STANLEY FLOWER, F.Z.S., M.B.O.U., Director of the Egyptian
 Government Zoological Gardens and Aquarium; Zoological
 Gardens, Ghizeli, Cairo.
Proposed by Mr. PHILLIPPS.

MEMBERS' SALE AND EXCHANGE COLUMN.

The charge for private advertisements is one penny for every four words. Names and addresses of advertizers must be paid for. Each statement of price, such as 3/6, is counted as one word. Every advertisement must be prepaid, and MUST reach the Secretary not later than the 19th of each month. The Council reserve the right of refusing any advertisement they may consider undesirable.

Chloropsis hardwicki, cock, imported last June, 40/-; *Chloropsis aurifrons*, over a year in cage, 30/-.

FREDERIC WALLOP, 46, South Street, Mayfair, London.

All Green Parrot, *Chrysotis agilis*, tame, 40/-.

HAMILTON, Bannerdown House, Batheaston, Bath.

Three hen Redrump Parrakeets, perfect condition, in outdoor aviary, 15/- each. B. THOMASSET, West Wickham, Kent.

True pair Silver-eared Mesias, in perfect condition, £5; hen ditto, 45/-; cock Blue-winged Siva, 40/-; Gold-fronted *Chloropsis*, 15/-; Blue-winged *Chloropsis*, healthy but somewhat shabby, 25/-; pair Red-faced Finches (*Pytelia afra*) 60/-; cock ditto, 40/-; pair Olive Cuba Finches, 40/-.

L. W. HAWKINS, 17, New Clive Road, West Dulwich.

Prettily marked Goldfinch-Canary mule, sings Goldfinch song, in outdoor aviary, 8/6. Hon. M. C. HAWKE, Wighill Park, Tadcaster.

Grey Parrot, splendid talker, £10; beautiful pair White Doves, 3/6; 27 parts British Birds their Nests and Eggs, clean and perfect, 40/-.

J. CRONKSHAW, Mansion House, Plantation Street, Accrington.

Mocking-bird (*Modularis*), perfect health and plumage, highly commended Dublin Show, 20/-.

Water colour drawings from life of the following birds, 3/6 each, approval to members:—Red-eared Bulbul, Diamond Doves, Mocking-bird, Brazilian Hangnest, Red-crested Cardinal, Lettered Aracari,—mounted suitable for framing.

Mrs. RATHBORNE, Dunsinea, Phoenix Park, Dublin.

Hen Military Starling, perfect, 5/-; hen Crimson-winged Parrakeet, good plumage, 20/-,—both in outdoor aviary.

G. C. PORTER, 38, Mill Street, Bedford.

Large Crystal Palace 3-compartment aviary, bay wood, on stand, cost £5, as new; drawer for various seeds, spring doors, table on casters, fit for any drawing-room, £3 cash.

Vols. I.—VIII. "Agricultural Magazine," unbound, plates complete and all coloured; £3 15s. cash.—W. OSBALDESTON, 3, Tithe Barn St., Preston.

E. W. LITTLE,
Naturalist & Bird Specialist,
16, Great Quebec Street, Montagu Square, London, W.

PRACTICAL TAXIDERMY.

Animals, Horns, Birds, Fish, Reptiles, all kinds of Curios and Sporting Trophies.

Preserved, Arranged, Mounted, Cleaned or Dressed, by the most recent Scientific Methods, producing results second to nature only.

....**Estimates Free**....

Advice upon the Management of Cage Birds—during illness or accident.

Operations performed with great success from long experience.

TERMS ON APPLICATION.

SUCCESS IN BIRD KEEPING & BREEDING

CAN ONLY BE SECURED BY USING

ABRAHAMS'

WORLD-FAMED

 **Specialities in BIRD FOOD.**

LARGE STOCK OF RARE FOREIGN BIRDS.

HARTZ MOUNTAIN ROLLERS,

Norwich, Yorkshire and Lizard Canaries

Cock Birds in full Song now in Stock

ABRAHAMS' TONIC for Diarrhoea and Strengthening Birds.

EVERY DESCRIPTION OF

Cage and Aviary Appliance, Seed, etc., in stock.

For complete Price List apply to—

J. ABRAHAMS, Naturalist
& Importer,

191 & 192, ST. GEORGE STREET EAST,

LONDON, E.

J. ABRAHAMS' is the oldest and most reliable Establishment in England.

III.

NOTICES TO MEMBERS—(*Continued from page ii. of cover*).

NEW MEMBERS.

- Mr. AUBREY GREGORY; Seetarampore, E. I. R., India.
Mr. PAUL E. SCHWEDER; Courtlands, Goring, Sussex.
Captain W. F. SMITHWICK; Youghal House, Nenagh, Ireland.
Mr. HENRIK GRÖNVOLD, Danish Artist; 26, Albert Bridge Road, Battersea Park, S.W.
Miss LANGFORD; Fairlea, Upperton Road, Eastbourne.
Mme. HAMILTON; Les Deux Parzes, Champéry (Valais), Switzerland.
Mr. BAZLINTON MASON; 23, North Parade, Lincoln.
Mrs. RATHBORNE; Dunsinea House, Phoenix Park, Dublin.
The Rev. C. J. ROWLAND BERKELEY; Belton Vicarage, Uppingham
Mr. J. W. TIDEY; 5, Cambridge Road, Hastings.
Mrs. BAYLDON; Oaklands, Dawlish.
Mr. GEORGE HEWSON, A.M., I.C.E.; Glendoone, Harehills Avenue, Leeds.
IONKHEER L. I. QUARLES VAN UFFORD; 8, vande Spiegelstraat, den Haag, Holland.
-

CANDIDATES FOR ELECTION.

- Mr. BERTRAM S. OGLE, M.B.O.U.; Steeple Aston, Oxford.
Proposed by the Hon K. HAMMOND.
Mr. HENRY SCHERREN, F.Z.S., M.B.O.U.; 9, Cavendish Road, Harringay, N. *Proposed by Mr. J. LEWIS BONHOTR.*
Mr. J. J. ARMITAGE; Lindum House, Burns Street, Nottingham.
Proposed by Miss ALDERSON.
Mr. A. ROGERSON; Fleurville, Ashford Road, Cheltenham.
Proposed by Mr. CUMMINGS.
The Rev. R. H. WILMOT; Poulton Vicarage, Fairford.
Proposed by the Hon. and Rev. Canon DUTTON.
Mr. J. G. BARBER; Waverley House, Melton Road, Leicester.
Proposed by Mr. OAKLEY.
Mr. W. TOMES; Glenmoor, Billing Road, Northampton; *and*
Mr. C. S. REID; 4, Howard Park Drive, Kilmarnock.
Proposed by Mr. BURGESS.

(*Continued on opposite page*).

E. W. LITTLE,
Naturalist & Bird Specialist,
16, Great Quebec Street, Montagu Square, London, W.

PRACTICAL TAXIDERMY.

Animals, Horns, Birds, Fish, Reptiles, all kinds of Curios and Sporting Trophies.

Preserved, Arranged, Mounted, Cleaned or Dressed, by the most recent Scientific Methods, producing results second to nature only.

....Estimates Free....

Advice upon the Management of Cage Birds—during illness or accident.

Operations performed with great success from long experience.

TERMS ON APPLICATION.

SUCCESS IN BIRD KEEPING & BREEDING

CAN ONLY BE SECURED BY USING

❖ ABRAHAM'S ❖

WORLD-FAMED

 **Specialities in BIRD FOOD.**

LARGE STOCK OF RARE FOREIGN BIRDS.

HARTZ MOUNTAIN ROLLERS,

Norwich, Yorkshire and Lizard Canaries.

Cock Birds in full Song now in Stock

ABRAHAM'S TONIC for Diarrhoea and Strengthening Birds.

EVERY DESCRIPTION OF

Cage and Aviary Appliance, Seed, etc., in stock.

For complete Price List apply to—

J. ABRAHAM'S, Naturalist
& Importer,

191 & 192, ST. GEORGE STREET EAST,

LONDON, E.

J. ABRAHAM'S is the oldest and most reliable Establishment
in England.

III.

NOTICES TO MEMBERS—(*Continued from page ii. of cover*).

CANDIDATES FOR ELECTION.

Mr. AUBREY GREGORY; Seetarampore, E. I. R., India.

Proposed by Mrs. GREGORY.

Mr. PAUL E. SCHWEDER; Courtlands, Goring, Sussex.

Proposed by Miss BARCLAY WATSON.

Captain W. F. SMITHWICK; Yonghal House, Nenagh, Ireland.

Proposed by Miss ALDERSON.

Mr. HENRIK GRÖNVOLD, Danish Artist; 26, Albert Bridge Road, Battersea Park, S.W. *Proposed by Dr. BUTLER.*

Miss LANGFORD; Fairlea, Upperton Road, Eastbourne.

Proposed by Mr. D. SETII-SMITH.

Mme. HAMILTON; Les Deux Parzes, Champéry (Valais), Switzerland

Proposed by Miss HAMILTON.

Mr. BAZLINTON MASON; 23, North Parade, Lincoln.

Proposed by Mr. CLAYTON.

Mrs. RATHBORNE; Dunsinea House, Phoenix Park, Dublin.

Proposed by Mr. RATHBORNE.

The Rev. C. J. ROWLAND BERKELEY; Belton Vicarage, Uppingham

Proposed by Mr. GILL.

Mr. J. W. TIDEY; 5, Cambridge Road, Hastings.

Proposed by Mr. PHILLIPPS.

Mrs. BAYLDON; Oaklands, Dawlish.

Proposed by Miss M. D. SHARP.

Mr. GEORGE HEWSON, A.M., I.C.F.; Glendoone, Harehills Avenue, Leeds.

Proposed by Mr. ARCHIBALD SIMPSON.

IONKHEER L. I. QUARLES VAN UFFORD; 8, vande Spiegelstraat, den Haag, Holland. *Proposed by Mr. PHILLIPPS.*

MEMBERS' SALE AND EXCHANGE COLUMN.

The charge for private advertisements is one penny for every four words. Names and addresses of advertisers must be paid for. Each statement of price, such as 3/6, is counted as one word. Every advertisement must be prepaid, and MUST reach the Secretary not later than the 19th of each month. The Council reserve the right of refusing any advertisement they may consider undesirable.

Cock Pectoral Rail, 15/-; pair Tibial Tronpials, 21/-.

Hon. FREDERIC WALLOP, 46, South Street, Park Lane, London, W.

Wanted Foreign Birds for Japanese Bantams:—adult pairs 10/-, young 8/-.

Miss M. SHARP, Ringwood, Hants.

Beautiful cock Bullfinch, 4/6; Linnet, 3/6. Nice pets.

SPEED, Victoria Park, Bangor.

Will exchange three (1902) Silver Pheasant pullets for pair ditto; also two cock Cockatiels for two hens—outdoor aviary.

ROTHERA, Hazelwood, Nottingham.

(Continued on opposite page).

E. W. LITTLE,
Naturalist & Bird Specialist,
16, Great Quebec Street, Montagu Square, London, W.

PRACTICAL TAXIDERMY.

Animals, Horns, Birds, Fish, Reptiles, all kinds of Curios and Sporting Trophies.

Preserved, Arranged, Mounted, Cleaned or Dressed, by the most recent Scientific Methods, producing results second to nature only.

....Estimates Free....

Advice upon the Management of Cage Birds—during illness or accident.

Operations performed with great success from long experience.

TERMS ON APPLICATION.

SUCCESS IN BIRD KEEPING & BREEDING

CAN ONLY BE SECURED BY USING

✻ ABRAHAMS' ✻

WORLD-FAMED

Specialities in BIRD FOOD.

LARGE STOCK OF RARE FOREIGN BIRDS.

HARTZ MOUNTAIN ROLLERS,

Norwich, Yorkshire and Lizard Canaries.

Cock Birds in full Song now in Stock

ABRAHAMS' TONIC for Diarrhoea and Strengthening Birds.

EVERY DESCRIPTION OF

Cage and Aviary Appliance, Seed, etc., in stock.

For complete Price List apply to—

J. ABRAHAMS, Naturalist
& Importer,

191 & 192, ST. GEORGE STREET EAST,

LONDON, E.

J. ABRAHAMS' is the oldest and most reliable Establishment
in England.

NEW SERIES.

MONTHLY.

FEBRUARY, 1903.

Vol. 1. No. 4

Price 1s 6d.

Members' Annual Subscription, 10 -; payable in advance.



THE JOURNAL OF THE AVICULTURAL SOCIETY.

CONTENTS.

	PAGE
Editorial	119
The Blue-breasted Waxbill (<i>with coloured plate</i>), by REGINALD PHILLIPPS	120
Rambles among the Wild Birds (No. II.), by the Rev. F. L. BLAITHWAYT	124
Notes on Doves. Part III. (<i>with two plates</i>), by Miss R. ALDERSON ..	130
The Construction and Fitting of Small Aviaries, by H. C. MARTIN	134
The Ruff, by G. C. PORTER	141
Bird Notes from the Zoological Gardens	144
REVIEW—"Parakeets"	146
CORRESPONDENCE—"Hybrids": Nightingale not moulting: Goul- dians, Pintail Nonpareils, etc.: Rosellas and Cockatiels: Con- tinental Bird-dealers: Mantell's Apteryx laying in captivity: Peculiarities in the flight of birds: Pekin Robins: Yew and Box trees	147
Proposed General Index	153
Balance Sheet for the Year 1901-2	154
Post Mortem Examinations	156

LONDON:

R. H. PORTER, 7, PRINCES ST., CAVENTISH SQUARE, W.

NOTE.—A new volume commences every November.

II.

☛ All Subscriptions should be sent to the Honorary Secretary.

THE AVICULTURAL SOCIETY.



All persons wishing to join the AVICULTURAL SOCIETY are requested to communicate with the Hon. Secretary.

NOTICES TO MEMBERS.

The Subscription to the Avicultural Society is 10 - per annum, due on the 1st of November in each year, and is payable in advance. The entrance fee is 2 6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

All MSS. for publication in the Magazine (except cases for the Society's Medal), and Books for review, should be addressed to the Editor, Mr. D. SETH-SMITH, Glengarry, Canning Road, Addiscombe, Surrey.

All other correspondence, cases for the Medal, Subscriptions, and Advertisements, should be sent to the Honorary Secretary, Mr. R. PHILLIPPS, 26, Cromwell Grove, West Kensington Park, London, W. Any change of address should be at once notified to the Secretary.

Advice is given, *by post*, by members of the Council to members of the Society, upon all subjects connected with Foreign and British birds. All queries are to be addressed to the Hon. Secretary. Those marked "Private" will not be published.

The Magazine is published by Mr. R. H. PORTER (7, Princes Street, Cavendish Square, W.) to whom all orders for extra copies, back numbers, and bound volumes (accompanied by remittance) should be addressed.

Cases for binding Vol. VIII. can now be obtained, post free and carefully packed, for 1 3 each, from the Publisher, who also undertakes the binding of the Magazine (including case) for 2/-, plus packing and postage, 8d.

BOUND COPIES OF THE "AVICULTURAL MAGAZINE."

The following can be obtained from the Publisher at the prices given below. Postage 6d. per volume extra :

Vol. II., to members, 6/-; to the public, 8 6.

Vols. V. to VII., 10/6 each to members; 12 6 each to the public.

Vol. VIII., 14/- to members; 17/6 to the public.

Back monthly numbers 1/6 each, by post 1/7.

Vols. I., III. & IV., are out of print. Second-hand copies sometimes reach the Publisher, to whom application should be made.

NEW MEMBERS.

Miss WALKER; Hanley Lodge, Corstorphine, N.B.

Mrs. WRIGHT; Hampsthwaite Hall, Ripley, Yorks.

Miss EMPSON; 1, Mill Hill Road, Barnes.

Mr. CHASE; 18, Hungerford Avenue, Crewe.

Miss JARDINE; 133, Cheyne Walk, Chelsea

Captain STANLEY FLOWER, F.Z.S., M.B.O.U., Director of the Egyptian Government Zoological Gardens and Aquarium; Zoological Gardens, Ghizeh, Cairo.

(Continued on page iii. of cover).



THE JOURNAL OF THE AVICULTURAL SOCIETY.

CONTENTS.

	PAGE
The Crowned Crane (<i>with coloured plate</i>), by Mrs. GREGORY ...	159
On the Topography of a Bird (<i>with three plates</i>), by W. P. PYCRAFT, M.B.O.U., etc.	160
Notes on a Private Collection of Living Birds, during 1900-c2 (<i>illustrated</i>) by GRAHAM RENSCHAW, M.B.	168
Some Notes on the Crystal Palace Bird Show	178
The Quaker Parrakeet at large	181
Bird Notes from the Zoological Gardens	183
CORRESPONDENCE—Green Bulbuls: The All-green Parrot: Grey Parrots: The Pin-tailed Whydah: The species of <i>Palæornis</i> : Food for Goldfinches: Grey Parrot in trouble: Mocking-birds: Breeding birds in immature plumage: Continental Bird-dealers: South African Birds: Instinct and Nest-building: Male Lyre- bird Incubating	184
The Proposed General Index	193
Post Mortem Examinations	194

LONDON:

R. H. PORTER, 7, PRINCES ST., CAVENDISH SQUARE, W.

NOTE.—A new volume commences every November.

II.

☛ All Subscriptions should be sent to the Honorary Secretary.

THE AVICULTURAL SOCIETY.



All persons wishing to join the AVICULTURAL SOCIETY are requested to communicate with the Hon. Secretary.

NOTICES TO MEMBERS.

The Subscription to the Avicultural Society is 10/- per annum, due on the 1st of November in each year, and is payable in advance. The entrance fee is 2/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

All MSS. for publication in the Magazine (except cases for the Society's Medal), and Books for review, should be addressed to the Editor, Mr. D. SETH-SMITH, Glengarry, Canning Road, Addiscombe, Surrey.

All other correspondence, cases for the Medal, Subscriptions, and Advertisements, should be sent to the Honorary Secretary, Mr. R. PHILLIPPS, 26, Cromwell Grove, West Kensington Park, London, W. Any change of address should be at once notified to the Secretary.

Advice is given, *by post*, by members of the Council to members of the Society, upon all subjects connected with Foreign and British birds. All queries are to be addressed to the Hon. Secretary. Those marked "Private" will not be published.

The Magazine is published by Mr. R. H. PORTER (7, Princes Street, Cavendish Square, W.) to whom all orders for extra copies, back numbers, and bound volumes (accompanied by remittance) should be addressed.

Cases for binding Vol. VIII. can now be obtained, post free and carefully packed, for 1/3 each, from the Publisher, who also undertakes the binding of the Magazine (including case) for 2/-, plus packing and postage, 8d.

BOUND COPIES OF THE "AVICULTURAL MAGAZINE."

The following can be obtained from the Publisher at the prices given below. Postage 6d. per volume extra :

Vol. II., to members, 6/- ; to the public, 8/6.

Vols. V. to VII., 10/6 each to members ; 12/6 each to the public.

Vol. VIII., 14/- to members ; 17/6 to the public.

Back monthly numbers 1/6 each, by post 1/7.

Vols. I., III. & IV., are out of print. Second-hand copies sometimes reach the Publisher, to whom application should be made.

WANTED.

Vol. I., complete ; state condition and price. For No. 4 of Vol. I. 5/- is offered ; for No. 28 of Vol. III. 2/6 offered ; for No. 39 of Vol. IV. 2/- offered ; for No. 40 of Vol. IV. 3/- offered.

R. H. PORTER, 7, Princes Street, Cavendish Square, London, W.

(Continued on page iii. of cover)



THE JOURNAL OF THE AVICULTURAL SOCIETY.

CONTENTS.

	PAGE
The Crowned Crane (<i>with coloured plate</i>), by Mrs. GREGORY ...	195
Temminck's Whistling Thrush (<i>with plate</i>), by the Rev. H. D. ASTLEY	196
Waders in Captivity, by W. H. ST. QUINTIN, F.Z.S. ...	202
How <i>not</i> to Breed Redrumps, by Miss E. BRAMPTON ...	204
The Chiffchaff as a Cage-bird, by C. M. MAYOR ...	206
The Himalayan Black Bulbul, by W. T. PAGE, F.Z.S. ...	209
Cage-Birds in Sierra Leone, by ROBIN KEMP ...	212
Bird Notes from the Zoological Gardens ...	215
CORRESPONDENCE, NOTES, ETC.—	
The Misuse of the Mealworm: Grey Parrots: Instinct and Nest-building: A cross between a Mannikin and a Cape Canary: Waxbills in a cage: Zosterops, Blossom-heads, Budgerigars ...	216
Post Mortem Examinations ...	225

LONDON:

R. H. PORTER, 7, PRINCES ST., CAVENDISH SQUARE, W.

NOTE.—A new volume commences every November.

☛ All Subscriptions should be sent to the Honorary Secretary.

THE AVICULTURAL SOCIETY.



All persons wishing to join the AVICULTURAL SOCIETY are requested to communicate with the Hon. Secretary.

NOTICES TO MEMBERS.

The Subscription to the Avicultural Society is 10/- per annum, due on the 1st of November in each year, and is payable in advance. The entrance fee is 2 6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

All MSS. for publication in the Magazine (except cases for the Society's Medal), and Books for review, should be addressed to the Editor, Mr. D. SETH-SMITH, Glengarry, Canning Road, Addiscombe, Surrey.

All other correspondence, cases for the Medal, Subscriptions, and Advertisements, should be sent to the Honorary Secretary, Mr. R. PHILLIPPS, 26, Cromwell Grove, West Kensington Park, London, W. Any change of address should be at once notified to the Secretary.

Advice is given, *by post*, by members of the Council to members of the Society, upon all subjects connected with Foreign and British birds. All queries are to be addressed to the Hon. Secretary. Those marked "Private" will not be published.

The Magazine is published by Mr. R. H. PORTER (7, Princes Street, Cavendish Square, W.) to whom all orders for extra copies, back numbers, and bound volumes (accompanied by remittance) should be addressed.

Cases for binding Vol. VIII. can now be obtained, post free and carefully packed, for 1 3 each, from the Publisher, who also undertakes the binding of the Magazine (including case) for 2/-, plus packing and postage, 8d.

BOUND COPIES OF THE "AVICULTURAL MAGAZINE."

The following can be obtained from the Publisher at the prices given below. Postage 6d. per volume extra :

Vol. II., to members, 6/-; to the public, 8/6.

Vols. V. to VII., 10/6 each to members; 12/6 each to the public.

Vol. VIII., 14/- to members; 17/6 to the public.

Back monthly numbers 1/6 each, by post 1/7.

Vols. I., III. & IV., are out of print. Second-hand copies sometimes reach the Publisher, to whom application should be made.

WANTED.

Vol. I. and IV. complete; state condition and price, and if plates of latter coloured or black. For No. 4 of Vol. I. 5/- is offered, and 3/- for No. 40 of Vol. IV.

R. H. PORTER, 7, Princes Street, Cavendish Square, London, W.

(Continued on page iii. of cover)

III.

NOTICES TO MEMBERS—(Continued from page ii. of cover).

NEW MEMBERS.

The Countess of HAREWOOD; Harewood House, Leeds.
 The Lady MARGARET SPICER; Spy Park, Chippenham.
 Miss MORTIMER; Wigmore, Holmwood, Surrey.
 Dr. INNES BEY, M.B.O.U.; Curator, Zoological Museum, Government
 School of Medicine, Cairo, Egypt.
 Miss GUILFORD; 23, Lenton Avenue, The Park, Nottingham.
 Mr. CECIL M. MAYOR; "Holmwood," Paignton.
 Mr. H. P. RABBICH; "The Kraal," Paignton.
 Mr. F. CAPERN; Beaufort Villa, 53, Redland Road, Bristol.
 Mr. JOHN MURRAY; 25, Glasgow Street, Ardrossan.
 Mrs. VIVIAN; 35, Rua Alegre, Foz do Douro, Portugal.
 Mr. HERMANN KESTERMANN; 50, Grafton Street, Manchester.
 Mr. ROBIN KEMP; The Chase, Halstead, Essex.

CANDIDATES FOR ELECTION.

The Countess of WINCHILSEA & NOTTINGHAM; Harlech, Merioneth; *and*
 Mrs. ATHERLY; Attingham Park, Shrewsbury; *and*
 Miss MABEL WILLATT; Draycott Lodge, near Derby; *and*
 Miss ALICE PANTON; 14, King Edward's Road, Bath; *and*
 Mr. WATKIN WATKINS, B.A., F.Z.S., M.B.O.U.; Highfield, Harrow.

Proposed by the Hon. Secretary.

Captain TWEEDIE, 93rd Highlanders; Stirling Castle, N.B.

Proposed by Dr. GREENE.

Miss BINNY; 10, Queen's Gate Place, S.W.

Proposed by the Honble. K. HAMMOND.

Miss APPLETON; Rawden Hill, Arthington, Leeds; *and*

Miss SHOWELL; Park Vale, Edgbaston, Birmingham.

Proposed by Mr. GILL.

Mr. R. J. HOWARD, M.B.O.U.; Shear Bank, Blackburn.

Proposed by Mr. BENTLEY.

Mrs. BRYANT; Harold Wood Hall, Romford.

Proposed by Mr. CASTELLAN.

Mr. J. E. D. OSTREHAN; Thame, Oxon.

Proposed by Mr. SALTER.

Mr. W. H. VALE; 8, Park Place, Clapham.

Proposed by Mr. FROSTICK.

Mr. F. BATHE; 5, Montgomery Road, Sharrow, Sheffield.

Proposed by Mr. F. C. THORPE.

Miss M. BARNS, F.Z.S.; 52, Fitzroy Road, Regent's Park, N.W.

Proposed by Mr. PERCIVAL.

MEMBERS' SALE AND EXCHANGE COLUMN.

The charge for private advertisements is one penny for every four words. Names and addresses of advertisers must be paid for. Each statement of price, such as 3/6, is counted as one word. Every advertisement must be prepaid, and MUST reach the Secretary not later than the 19th of each month. The Council reserve the right of refusing any advertisement they may consider undesirable.

Pair Yellow Budgerigars in good condition, 15/-.

T. TURNER, Cullompton, Devon.

Hen Zebra Finches, aviary bred, perfect, 2/6 each.

F. BATHE, Sharrow, Sheffield.

(Continued on opposite page).

E. W. LITTLE,
Naturalist & Bird Specialist,
16, Great Quebec Street, Montagu Square, London, W.

PRACTICAL TAXIDERMY.

Animals, Horns, Birds, Fish, Reptiles, all kinds of Curios and
Sporting Trophies.

Preserved, Arranged, Mounted, Cleaned or Dressed, by the
most recent Scientific Methods, producing results second to
nature only.

....**Estimates Free.**....

Advice upon the Management of Cage Birds—during illness or
accident.

Operations performed with great success from long experience.

TERMS ON APPLICATION.

SUCCESS IN BIRD KEEPING & BREEDING

CAN ONLY BE SECURED BY USING

ABRAHAMS'

WORLD-FAMED

 **Specialities in BIRD FOOD.**

LARGE STOCK OF RARE FOREIGN BIRDS.

HARTZ MOUNTAIN ROLLERS,

Norwich, Yorkshire and Lizard Canaries.

Cock Birds in full Song now in Stock

ABRAHAMS' TONIC for Diarrhoea and Strengthening Birds.

EVERY DESCRIPTION OF

Cage and Aviary Appliance, Seed, etc., in stock.

For complete Price List apply to—

J. ABRAHAMS, Naturalist
& Importer,

191 & 192, ST. GEORGE STREET EAST,

LONDON, E.

J. ABRAHAMS' is the oldest and most reliable Establishment
in England.

III.

NOTICES TO MEMBERS—(Continued from page ii. of cover).

NEW MEMBERS.

The Duchess of BEDFORD; Woburn Abbey, Beds.
 Miss VIOLET M. CHOLMLEY; Place Newton, Rillington, York.
 Miss DOROTHY FITZ GERALD; c/o Colonel Fitz Gerald, 68th Durham
 Light Infantry, Wellington, Madras Presidency, India.
 Mr. NORMAN RITCHIE; The Holmes, St. Boswells, N.B.
 Mrs. HOLDING; 14, Vanbrugh Park, Blackheath.
 Mr. GRAHAM RENSHAW, M.D.; Sale Bridge House, Sale, Manchester.
 Mr. RICHARD HODGSON, Junr.; Molescroft, Beverley.
 Mr. J. HALLIWELL; 11, Westbourne Grove, West Kirby, Birkenhead.
 Mr. H. J. BULL; 166, Upper Kennington Lane, S.E.
 Mrs. WATERHOUSE; 6, Esplanade, Scarborough.
 Miss PEDDIE WALDELL; 4, Great Stuart Street, Edinburgh.
 Mr. R. W. S. WALKER; Glen Hall, Leicester.
 Mr. I. MORDAUNT WHEELER, M.D.; 435, Battersea Park Road, S.W.
 Mr. RANDOLPH J. PICKFORD, Witton-le-Wear, R.S.O., Co. Durham.

CANDIDATES FOR ELECTION.

The Countess of HAREWOOD; Harewood House, Leeds.
Proposed by Mrs. STANYFORTH.
 The Lady MARGARET SPICER; Spye Park, Chippenham.
Proposed by Mr. C. P. ARTHUR.
 Miss MORTIMER; Wigmore, Holmwood, Surrey.
Proposed by Mrs. MORTIMER.
 Dr. INNES BEV. M.B.O.U.; Curator, Zoological Museum, Government
 School of Medicine, Cairo, Egypt.
Proposed by Captain FLOWER.
 Miss GUILFORD; 23, Lenton Avenue, The Park, Nottingham.
Proposed by Mr. CHATWIN.
 Mr. CECIL M. MAYOR; "Holmwood," Paignton; *and*
 Mr. H. P. RABBICH; "The Kraal," Paignton.
Proposed by Dr. GREENE.
 Mr. F. CAPERN; Beaufort Villa, 53, Redland Road, Bristol; *and*
 Mr. JOHN MURRAY, 25, Glasgow Street, Ardrossan.
Proposed by Mr. CARRICK.
 Mrs. VIVIAN; 35, Rua Alegre, Foz do Douro, Portugal; *and*
 Mr. HERMANN KESTERMANN; 50, Grafton Street, Manchester.
Proposed by Mr. PHILLIPPS.
 Mr. ROBIN KEMP; The Chase, Halstead, Essex.
Proposed by Mr. SETH-SMITH.

MEMBERS' SALE AND EXCHANGE COLUMN.

The charge for private advertisements is one penny for every four words. Names and addresses of advertisers must be paid for. Each statement of price, such as 3/6, is counted as one word. Every advertisement must be prepaid, and MUST reach the Secretary not later than the 19th of each month. The Council reserve the right of refusing any advertisement they may consider undesirable.

One pair Redrumps, from outdoor aviary, splendid condition, 27/6 the pair.
 Baronne Le CLÉMENT DE TAINTEGNIES., Cleveland, Minehead,
 Somerset.

King Parrakeet and cock Redrump, 3 years old; perfect health and
 plumage. Norwich cocks from garden aviary, 6/6 to 12/6.

Miss E. BRAMPTON, Brentwood.

(Continued on opposite page).

E. W. LITTLE,
Naturalist & Bird Specialist,
16, Great Quebec Street, Montagu Square, London, W.

PRACTICAL TAXIDERMY.

Animals, Horns, Birds, Fish, Reptiles, all kinds of Curios and Sporting Trophies.

Preserved, Arranged, Mounted, Cleaned or Dressed, by the most recent Scientific Methods, producing results second to nature only.

....**Estimates Free**....

Advice upon the Management of Cage Birds—during illness or accident.

Operations performed with great success from long experience.

TERMS ON APPLICATION.

SUCCESS IN BIRD KEEPING & BREEDING

CAN ONLY BE SECURED BY USING

ABRAHAMS'

WORLD-FAMED

Specialities in BIRD FOOD.

LARGE STOCK OF RARE FOREIGN BIRDS.

HARTZ MOUNTAIN ROLLERS,

Norwich, Yorkshire and Lizard Canaries.

Cock Birds in full Song now in Stock

ABRAHAMS' TONIC for Diarrhoea and Strengthening Birds.

EVERY DESCRIPTION OF

Cage and Aviary Appliance, Seed, etc., in stock.

For complete Price List apply to—

J. ABRAHAMS, Naturalist
& Importer,

191 & 192, ST. GEORGE STREET EAST,

LONDON, E.

J. ABRAHAMS' is the oldest and most reliable Establishment
in England.

III.

NOTICES TO MEMBERS—(Continued from page ii. of cover).

CANDIDATES FOR ELECTION.

The Duchess of BEDFORD; Woburn Abbey, Beds.

Proposed by Mr. PHILLIPPS.

Miss VIOLET M. CHOLMELEY; Place Newton, Rillington, York.

Proposed by Miss MARGERY ST. QUINTIN.

Miss DOROTHY FITZ GERALD; c/o Colonel Fitz Gerald, 68th Durham Light Infantry, Wellington, Madras Presidency, India.

Proposed by Mrs. MOWERAY CHARRINGTON.

Mr. NORMAN KITCHIE; The Holmes, St. Boswells, N.B.

Proposed by Master NOEL PHILLIPPS.

Mrs. HOLDING; 14, Vambrugh Park, Blackheath.

Proposed by Mr. TOMES.

Mr. GRAHAM RENSCHAW, M.D.; Sale Bridge House, Sale, Manchester.

Proposed by Mr. D. SETH-SMITH.

Mr. RICHARD HODGSON, Junr.; Molescroft, Beverley.

Proposed by Mr. SWAILES.

Mr. J. HALLIWELL; 11, Westbourne Grove, West Kirby, Birkenhead.

Proposed by Mr. BURGESS.

Mr. H. J. BULL; 166, Upper Kennington Lane, S.E.; and

Mrs. WATERHOUSE; 6, Esplanade, Scarborough; and

Miss PEDDIE WADDELL; 4, Great Stuart Street, Edinburgh.

Proposed by Dr. GREENE.

Mrs. DAY; The Rectory, Killeagh, Co. Cork.

Proposed by Mr. RUDKIN.

Mr. R. W. S. WALKER; Glen Hall, Leicester.

Proposed by Mr. OAKLEY.

Mr. I. MORDAUNT WHEELER, M.D.; 435, Battersea Park Road, S.W.

Proposed by Mr. GRÖNVOLD.

Mr. RANDOLPH J. PICKFORD, Witton-le-Wear, R.S.O., Co. Durham.

Proposed by Dr. MYLAN.

MEMBERS' SALE AND EXCHANGE COLUMN.

The charge for private advertisements is one penny for every four words. Names and addresses of advertizers must be paid for. Each statement of price, such as 3/6, is counted as one word. Every advertisement must be prepaid, and MUST reach the Secretary not later than the 19th of each month. The Council reserve the right of refusing any advertisement they may consider undesirable.

Yellow-flanked Parrakeet, perfect plumage, talks—"Three cheers for the king, hip, hip, hurrah;" "Come and kiss me, darling;" "Who are you;" "Come along," etc., etc. 70/-.

SAMUEL BURGE, Ivy Cottage, Fairford.

Large Albion radiating oil stove, excellent for birdroom, 10/-. "Avicultural Magazine," bound in cloth—Vol. II. 5/-; Vols. V. and VI. 8/6 each. Unbound, Vol. VII. 7/6; Vol. VIII., No. 6 missing, 8/6.

Mrs. LESLIE WILLIAMS, Swanswick Cottage, Bath.

Vols. I.-VII. bound half roan, gilt bands; VIII. unbound, new; price 90/-.

W. T. CATLEUGH, Clyffe, Richmond Wood Road, Bournemouth.

Pair Japanese Red-sided Tits, healthy, good condition, price 20/-.

Mrs. HOWARD WILLIAMS, Hamilton Lodge, Bickley, Kent.

Breeding cage in six divisions, in perfect condition, only used one season; cost 45/-, will take 25/-.

Miss HARBOTTLE, Victoria Place, Budleigh Salterton, Devon.

Senegal Doves, 15/- pair; young aviary-bred Black-headed Goshawk Finches, cock and hen, 20/-.

Miss M. SHARP, Spring Gardens, Ringwood, Hants.

Aviary-bred Californian Quails, 15/- a pair, cocks 7/- each. Might exchange hardy foreign birds.—Mrs. CONNELL, The Orchard, Brockenhurst.

(Continued on opposite page).

E. W. LITTLE,
Naturalist & Bird Specialist,
16, Great Quebec Street, Montagu Square, London, W.

PRACTICAL TAXIDERMY.

Animals, Horns, Birds, Fish, Reptiles, all kinds of Curios and Sporting Trophies.

Preserved, Arranged, Mounted, Cleaned or Dressed, by the most recent Scientific Methods, producing results second to nature only.

....Estimates Free....

Advice upon the Management of Cage Birds—during illness or accident.

Operations performed with great success from long experience.

TERMS ON APPLICATION.

SUCCESS IN BIRD KEEPING & BREEDING

CAN ONLY BE SECURED BY USING

❖ ABRAHAM'S ❖

WORLD-FAMED

Specialities in BIRD FOOD.

LARGE STOCK OF RARE FOREIGN BIRDS.

HARTZ MOUNTAIN ROLLERS,

Norwich, Yorkshire and Lizard Canaries.

Cock Birds in full Song now in Stock

ABRAHAM'S TONIC for Diarrhoea and Strengthening Birds.

EVERY DESCRIPTION OF

Cage and Aviary Appliance, Seed, etc., in stock.

For complete Price List apply to—

J. ABRAHAM'S, Naturalist
& Importer,

191 & 192, ST. GEORGE STREET EAST,

LONDON, E.

J. ABRAHAM'S is the oldest and most reliable Establishment
in England.



THE JOURNAL OF THE AVICULTURAL SOCIETY.

CONTENTS.

	PAGE
The Blue-bearded Jay (<i>with coloured plate</i>), by A. G. BUTLER, Ph D.	227
Notes on Doves, Part IV. by Miss R. ALDERSON	231
REVIEWS, NOTICES, etc.—	
Essays and Photographs	238
Open-air Studies in Bird Life	239
Etc. etc.	240
CORRESPONDENCE, NOTES, ETC.—	
New Zealand Birds : British Birds in New Zealand : Passerine Parrots and Nightingale : Sexual differences : Purple-rumped Sun-bird : Green-billed Toucan : The Plumed Ground Dove : Nesting of Greenfinches and Zebra Finches : What bird? : Java Sparrows : The Nightingale : Grey Singing Finches breeding : Identity of bird, and dark-coloured Lavender Finch	244
The Proposed General Index...	253
Post Mortem Examinations	254

LONDON :
R. H. PORTER, 7, PRINCES ST., CAVENDISH SQUARE, W.
NOTE.—A new volume commences every November.

☛ All Subscriptions should be sent to the Honorary Secretary.

THE AVICULTURAL SOCIETY.



All persons wishing to join the AVICULTURAL SOCIETY are requested to communicate with the Hon. Secretary.

NOTICES TO MEMBERS.

The Subscription to the Avicultural Society is 10 - per annum, due on the 1st of November in each year, and is payable in advance. The entrance fee is 2 6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

All MSS. for publication in the Magazine (except cases for the Society's Medal), and Books for review, should be addressed to the Editor, Mr. D. SETH-SMITH, Glengarry, Canning Road, Addiscombe, Surrey.

All other correspondence, cases for the Medal, Subscriptions, and Advertisements, should be sent to the Honorary Secretary, Mr. R. PHILLIPPS, 26, Cromwell Grove, West Kensington Park, London, W. Any change of address should be at once notified to the Secretary.

Advice is given, *by post*, by members of the Council to members of the Society, upon all subjects connected with Foreign and British birds. All queries are to be addressed to the Hon. Secretary. Those marked "Private" will not be published.

The Magazine is published by Mr. R. H. PORTER (7, Princes Street, Cavendish Square, W.) to whom all orders for extra copies, back numbers, and bound volumes (accompanied by remittance) should be addressed.

Cases for binding Vol. VIII. can now be obtained, post free and carefully packed, for 1 3 each, from the Publisher, who also undertakes the binding of the Magazine (including case) for 2/-, plus packing and postage, 8d.

BOUND COPIES OF THE "AVICULTURAL MAGAZINE."

The following can be obtained from the Publisher at the prices given below. Postage 6d. per volume extra :

Vol. II., to members, 6 - ; to the public, 8 6.

Vols. V. to VII., 10 6 each to members ; 12 6 each to the public.

Vol. VIII., 14/- to members ; 17 6 to the public.

Back monthly numbers 1 6 each, by post 1 7.

Vols. I., III. & IV., are out of print. Second-hand copies sometimes reach the Publisher, to whom application should be made.

WANTED.

Vol. I. and IV. complete; state condition and price, and if plates of latter coloured or black. For No. 4 of Vol. I. 5/- is offered, and 3/- for No. 40 of Vol. IV.

R. H. PORTER, 7, Princes Street, Cavendish Square, London, W.

(Continued on page iii. of next)

NEW SERIES.

MONTHLY.

JUNE, 1903.

Vol. 1. No 8.

Price 1^s 6^d.

Members' Annual Subscription, 10 -; payable in advance.



THE JOURNAL OF THE AVICULTURAL SOCIETY.

CONTENTS.

	PAGE
The Black-headed Sibia (<i>with coloured plate</i>), by REGINALD PHILLIPPS	255
Bird-Catching in India (<i>with plate</i>), by E. W. HARPER, F.Z.S.	262
The Osprey (<i>illustrated</i>), by J. LEWIS BONHOTE, M.A.	269
Instinct in Song Bird: Method of Breeding in Hand-reared Robins, by Professor W. E. D. SCOTT	273
More about the Spotted Wing, by A. G. BUTLER, Ph. D.	276
REVIEW.—"Parrakeets."	277
CORRESPONDENCE. NOTES, ETC.—	
The Misuse of the Mealworm: Pectoral Finches, etc.: Diamond Doves, etc.: Nightingales. Passerine Parrakeets, etc.: The Little-Owl: Hemp Seed: Nightingale off South Africa: The Himalayan Blue-Pie: The Indian Roller	278
Post Mortem Examinations	285

LONDON:

R. H. PORTER, 7, PRINCES ST., CAVENDISH SQUARE, W.

NOTE.—A new volume commences every November.

II.

☛ All Subscriptions should be sent to the Honorary Business Secretary.

THE AVICULTURAL SOCIETY.



All persons wishing to join the AVICULTURAL SOCIETY are requested to communicate with the Hon. Business Secretary.

NOTICES TO MEMBERS.

The Subscription to the Avicultural Society is 10/- per annum, due on the 1st of November in each year, and is payable in advance. The entrance fee is 2 6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

All MSS. for publication in the Magazine (except cases for the Society's Medal), and Books for review, should be addressed to the Editor, Mr. D. SETH-SMITH, Glengarry, Canning Road, Addiscombe, Surrey.

All Queries respecting Birds (except post mortem cases) should be addressed to the Honorary Correspondence Secretary, Dr. A. G. BUTLER, 124, Beckenham Road, Beckenham, Kent.

All other correspondence, cases for the Medal, Subscriptions, and Advertisements, should be sent to the Honorary Business Secretary, Mr. R. PHILLIPPS, 26, Cromwell Grove, West Kensington Park, London, W. Any change of address should be at once notified to the Secretary.

Advice is given, *by post*, by members of the Council to members of the Society, upon all subjects connected with Foreign and British birds. All queries are to be addressed to the Hon. Correspondence Secretary. Those marked "Private" will not be published.

The Magazine is published by Mr. R. H. PORTER (7, Princes Street, Cavendish Square, W.) to whom all orders for extra copies, back numbers, and bound volumes (accompanied by remittance) should be addressed.

Cases for binding Vol. VIII. can now be obtained, post free and carefully packed, for 1 3 each, from the Publisher, who also undertakes the binding of the Magazine (including case) for 2/-, plus packing and postage, 8d.

BOUND COPIES OF THE "AVICULTURAL MAGAZINE."

The following can be obtained from the Publisher at the prices given below. Postage 6d. per volume extra :

Vol. II., to members, 6/-; to the public, 8/6.

Vols. V. to VII., 10/6 each to members; 12/6 each to the public.

Vol. VIII., 14/- to members; 17/6 to the public.

Back monthly numbers 1/6 each, by post 1/7.

Vols. I., III., & IV., are out of print. Second-hand copies sometimes reach the Publisher, to whom application should be made.

WANTED.

Vol. I. and IV. complete; state condition and price, and if plates of latter coloured or black. For No. 4 of Vol. I. 5/- is offered, and 3/- for No. 40 of Vol. IV.

R. H. PORTER, 7, Princes Street, Cavendish Square, London, W.

(Continued on page iii. of *carter*)

NEW SERIES.

MONTHLY.

JULY, 1903.

Vol. 1. No. 9.

Price 1s. 6d.

Members' Annual Subscription, 10 -; payable in advance.



THE JOURNAL OF THE AVICULTURAL SOCIETY.

CONTENTS.

	PAGE
The Varied Lorikeet (<i>with coloured plate</i>), by REGINALD PHILLIPPS...	287
A Half-day's Bird-nesting with the Camera (<i>with plate</i>), by G. S. CHASE	292
The Lesser Rock-Sparrow, by A. G. BUTLER, Ph D.	294
A Fine Collection of Parrakeets	298
CORRESPONDENCE, NOTES, ETC.—	
Birds observed near Poolewe, N.B., during April, 1903:	
Identification of Bird: Lovebirds, etc., for Cold Greenhouse:	
Hybrid Singing-finch: African Sparrows: Feather plucking, and	
eating: The Sparrowhawk and Long-horned Owl: Cardinal ill:	
The Sex of Pekin Nightingales	302
Annual Meeting of the Council	312
Amended Rules of the Avicultural Society	313
Post-mortem Examinations	316

LONDON:

R. H. PORTER, 7, PRINCES ST., CAVENDISH SQUARE, W.

NOTE.—A new volume commences every November.

☛ All Subscriptions should be sent to the Honorary Business Secretary.

THE AVICULTURAL SOCIETY.



All persons wishing to join the AVICULTURAL SOCIETY are requested to communicate with the Hon. Business Secretary.

NOTICES TO MEMBERS.

The Subscription to the Avicultural Society is 10/- per annum, due on the 1st of November in each year, and is payable in advance. The entrance fee is 2/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

All MSS. for publication in the Magazine (except cases for the Society's Medal), and Books for review, should be addressed to the Editor, Mr. D. SETH-SMITH, Glengarry, Canning Road, Addiscombe, Surrey.

All Queries respecting Birds (except post mortem cases) should be addressed to the Honorary Correspondence Secretary, Dr. A. G. BUTLER, 124, Beckenham Road, Beckenham, Kent.

All other correspondence, cases for the Medal, Subscriptions, and Advertisements, should be sent to the Honorary Business Secretary, Mr. R. PHILLIPPS, 26, Cromwell Grove, West Kensington Park, London, W. Any change of address should be at once notified to the Secretary.

Advice is given, *by post*, by members of the Council to members of the Society, upon all subjects connected with Foreign and British birds. All queries are to be addressed to the Hon. Correspondence Secretary and should contain a penny stamp. Those marked "Private" will not be published.

The Magazine is published by Mr. R. H. PORTER (7, Princes Street, Cavendish Square, W.) to whom all orders for extra copies, back numbers, and bound volumes (accompanied by remittance) should be addressed.

Cases for binding Vol. VIII. can now be obtained, post free and carefully packed, for 1/3 each, from the Publisher, who also undertakes the binding of the Magazine (including case) for 2/-, plus packing and postage, 8d.

BOUND COPIES OF THE "AVICULTURAL MAGAZINE."

The following can be obtained from the Publisher at the prices given below. Postage 6d. per volume extra :

Vol. II., to members, 6/-; to the public, 8/6.

Vols. V. to VII., 10/6 each to members; 12/6 each to the public.

Vol. VIII., 14/- to members; 17/6 to the public.

Back monthly numbers 1/6 each, by post 1/7.

Vols. I., III. & IV., are out of print. Second-hand copies sometimes reach the Publisher, to whom application should be made.

(Continued on page iii. of cover)

III.

NOTICES TO MEMBERS—(Continued from page ii. of cover).

NEW MEMBERS.

- Miss HELEN LOVELL; Hinchleslea, Brockenhurst.
Mrs. ROBERTS; "Beaumaris," Montpelier Street, Hobart, Tasmania.
Miss M. ROE; "Edgmond," Cambridge Road, Bellevue, Tasmania.
Mr. DUNCAN PARKER, J.P.; Clopton Hall, Woolpit, Suffolk.
The Honble. Mrs. NEEDHAM; Berry Hill, Taplow.
Mrs. CLAUD STRACEY CLITHEROW; 20, Park Square, Regent's Park.
Mrs. KIRKWOOD; Highfields Park, Withlyham, Tunbridge Wells.
Mr. GEORGE E. SCHMETTAU; Redlands, Crockham Hill, Edenbridge.
Mr. LEE J. EDWARDS; Lee Cottage, Weston Green, Thames Ditton.
Mr. J. C. BAKER, M.B., B.A., M.R.C.S., L.R.C.P., M.B.O.U.; Ceely House, Aylesbury.
Mrs. HERBERT WALKER; 55, Fitzroy Road, Regent's Park.
Mr. HENRY M. GILES, M.A.O.U. (Orig. Mem.); Zoological Gardens, Perth, Western Australia.
Mr. CHARLES STRICK; The Croft, West Cross, R. S. O., Glamorganshire.
Mr. P. YEWDALE, "Brookfield," Calverley, Leeds.

CANDIDATES FOR ELECTION.

- Lady ADELAIDE DAWNAV; Braughton House, Northampton; and
Miss MARY EGERTON; Terrington House, York.
Proposed by The Honble. Mrs. CARPENTER.
Mr. D. S. MORSE; Bank of Ireland, Mount Bellew.
Proposed by Miss R. ALDERSON.
Miss FLORENCE E. WIGRAM; Chesnut Lodge, Cobham, Surrey.
Proposed by Miss APPLETON.
Mr. C. WILLIAM BEEBE; Curator of Ornithology, New York Zoological Park, New York City. *Proposed by Captain HORSBRUGH.*
Mr. H. R. FINN; 62, Alma Road, St. Albans.
Proposed by Mr. FRANK FINN.
Mr. H. E. ATTEWELL; Merriebank, Kingston, Jamaica.
Proposed by Mr. ELLIS.
Mr. P. PEIR; 50, Bondi Road, Waverley, Sydney, New South Wales.
Proposed by Mr. CARRICK.
Miss RUDSTON, Allerthorpe Hall, York.
Proposed by The Honble. Mrs. HODGSON.

MEMBERS' SALE AND EXCHANGE COLUMN.

The charge for private advertisements is one penny for every four words. Names and addresses of advertisers must be paid for. Each statement of price, such as 3/6, is counted as one word. Every advertisement must be prepaid, and MUST reach the Secretary not later than the 19th of each month. The Council reserve the right of refusing any advertisement they may consider undesirable.

Pair European Cranes, very tame, £16; pair Mandarin Ducks, 32/6; single Mandarin Duck, 15/-; Tufted Diver Duck, 10/-; cock North American Mocking-birds from outdoor aviary, 17/6 each.

FREDERIC WALLOP, Over Wallop, Stockbridge, Hants.

Avicultural Magazine:—Vols. VI., VII., VIII., complete; also several odd numbers of Vols. II., III., IV., V.: offers.

Miss E. BAMFORD, The Leys, Bedford.

(Continued on opposite page).

E. W. LITTLE,
Naturalist & Bird Specialist,
16, Great Quebec Street, Montagu Square, London, W.

PRACTICAL TAXIDERMY.

Animals, Horns, Birds, Fish, Reptiles, all kinds of Curios and Sporting Trophies.

Preserved, Arranged, Mounted, Cleaned or Dressed, by the most recent Scientific Methods, producing results second to nature only.

....**Estimates Free**....

Advice upon the Management of Cage Birds—during illness or accident.

Operations performed with great success from long experience.

TERMS ON APPLICATION.

SUCCESS IN BIRD KEEPING & BREEDING

CAN ONLY BE SECURED BY USING

✻ ABRAHAMS' ✻

WORLD-FAMED

Specialities in BIRD FOOD.

LARGE STOCK OF RARE FOREIGN BIRDS.

HARTZ MOUNTAIN ROLLERS,

Norwich, Yorkshire and Lizard Canaries.

Cock Birds in full Song now in Stock

ABRAHAMS' TONIC for Diarrhoea and Strengthening Birds.

EVERY DESCRIPTION OF

Cage and Aviary Appliance. Seed. etc., in stock.

For complete Price List apply to—

J. ABRAHAMS, Naturalist
& Importer,

191 & 192, ST. GEORGE STREET EAST,

LONDON, E.

J. ABRAHAMS' is the oldest and most reliable Establishment
in England.

III.

NOTICES TO MEMBERS—(Continued from page ii. of cover).

SPECIAL NOTICE.

The work of the Society has so greatly increased, and is so steadily increasing, that a strengthening of the Staff is imperative. Dr. ARTHUR G. BUTLER, Ph. D., F.L.S., F.Z.S., has most kindly consented to take the Post (subject to confirmation by the Council) of Honorary Correspondence Secretary; and all queries relating to Birds should now be forwarded direct to him at 124, Beckenham Road, Beckenham, Kent. Mr. PHILLIPPS, the Honorary Business Secretary, will continue to receive Subscriptions, Advertisements, cases for the Society's Medal, the names of Candidates for Election, and communications relating to the business of the Society.

NEW MEMBERS.

Mr. HENRY DART; 53, Richmond Road, Kingston-on-Thames.
Sir JOHN DILLWYN LEWELYN, Bart., M.A., F.Z.S.; Penllergaer, Swansea.
Mr. WILLIAM H. WORKMAN, M.B.O.U.; Lismore, Windsor, Belfast.
Dr. PAUL LEVERKÜHN, M.D., C.M.Z.S., C.M.A.O.U., etc., Director of the Scientific Institutions and the Library of H. R. H. the Prince of Bulgaria; The Palace, Sophia.
Dr. DAWTREY DREWITT, M.A., F.R.C.P., F.Z.S., M.B.O.U.; 14, Palace Gardens Terrace, Kensington.
Mr. W. RADCLIFFE SAUNDERS, F.Z.S., M.B.O.U.;
33, Prince's Square, W.; and
Major F. W. PROCTOR, Downfield, Maidenhead.

CANDIDATES FOR ELECTION.

Miss H. LOVELL; Hinchleslea, Brockenhurst.
Proposed by The Lady MARGARET SPICER.
Mrs. ROBERTS; "Beannaris," Montpelier Street, Hobart, Tasmania; and
Miss M. ROE; "Edgmond," Cambridge Road, Bellevue, Tasmania.
Proposed by Miss R. ALDERSON.
Mr. DUNCAN PARKER, J.P.; Clopton Hall, Woolpit, Suffolk.
Proposed by Dr. GÜNTHER.
The Honble. Mrs. NEEDHAM; Berry Hill, Taplow.
Proposed by Lady MORSHEAD.
Mrs. CLAUD STRACHEY CLITHEROW; 20, Park Square, Regent's Park.
Proposed by The Honble. FREDERIC WALLOP.
Mrs. KIRKWOOD; Highfields Park, Withyham, Tunbridge Wells; and
Mr. GEORGE E. SCHMETTAU; Redlands, Crockham Hill, Edenbridge.
Proposed by Mrs. MOWBRAY CHARRINGTON.
Mr. LEE J. EDWARDS; Lee Cottage, Weston Green, Thames Ditton.
Proposed by Mr. MATHIAS.
Dr. BAKER, M.B., B.A., M.R.C.S., L.R.C.P., M.B.O.U.; Ceely House, Aylesbury. *Proposed by Mr. GURNEY AGGS.*
Mrs. HERBERT WALKER; 55, Fitzroy Road, Regent's Park.
Proposed by Miss M. BARNS.
Mr. HENRY M. GILES, M.A.O.U. (Orig. Mem.); Zoological Gardens, Perth, Western Australia. *Proposed by Mr. CARRICK.*
Mr. CHARLES STRICK; The Croft, West Cross, R. S. O., Glamorganshire.
Proposed by Mr. VINER LEEDER.
Mr. P. YEWDALE, "Brookfield," Calverley, Leeds.
Proposed by Mr. ARCHIBALD SIMPSON.

(Continued on opposite page).

E. W. LITTLE,
Naturalist & Bird Specialist,
16, Great Quebec Street, Montagu Square, London, W.

PRACTICAL TAXIDERMY.

Animals, Horns, Birds, Fish, Reptiles, all kinds of Curios and Sporting Trophies.

Preserved, Arranged, Mounted, Cleaned or Dressed, by the most recent Scientific Methods, producing results second to nature only.

....**Estimates Free**....

Advice upon the Management of Cage Birds—during illness or accident.

Operations performed with great success from long experience.

TERMS ON APPLICATION.

SUCCESS IN BIRD KEEPING & BREEDING

CAN ONLY BE SECURED BY USING

✻ ABRAHAMS' ✻

WORLD-FAMED

Specialities in BIRD FOOD.

LARGE STOCK OF RARE FOREIGN BIRDS.

HARTZ MOUNTAIN ROLLERS,

Norwich, Yorkshire and Lizard Canaries.

Cock Birds in full Song now in Stock

ABRAHAMS' TONIC for Diarrhoea and Strengthening Birds.

EVERY DESCRIPTION OF

Cage and Aviary Appliance, Seed, etc., in stock.

For complete Price List apply to—

J. ABRAHAMS, Naturalist
& Importer,

191 & 192, ST. GEORGE STREET EAST,

LONDON, E.

J. ABRAHAMS' is the oldest and most reliable Establishment
in England.

III.

NOTICES TO MEMBERS—(*Continued from page ii. of cover*).

ARTISTS' ORIGINAL, WATER COLOUR PROOFS AND DRAWINGS.

The following are offered for sale, for the benefit of the Society's Funds:—The original coloured proof of the Yellow-eyed Babbler (January), by Grönvold. The original water colour drawing of the Blue-breasted Waxbill (February), by Goodchild. The original coloured proof of the head of the Crowned Crane (April), by Grönvold. Offers to the Honorary Secretary.

NEW MEMBERS.

The Countess of WINCHILSEA & NOTTINGHAM; Harlech, Merioneth.
Mrs. ATHERLEY; Attingham Park Shrewsbury.
Miss MABEL WILLATT; Dravcott Lodge, near Derby.
Miss ALICE PANTON; 14, King Edward's Road, Bath.
Mr. WATKIN WATKINS, B.A., F.Z.S., M.B.O.U.; Highfield, Harrow.
Captain TWEEDIE, 93rd Highlanders; Stirling Castle, N.B.
Miss BINNV; 10, Queen's Gate Place, S.W.
Miss APPLETON; Rawden Hill, Arthington, Leeds.
Miss SHOWELL; Park Vale, Edgbaston, Birmingham.
Mr. R. J. HOWARD, M.B.O.U.; Shear Bank, Blackburn.
Mrs. BRYANT; Harold Wood Hall, Romford.
Mr. J. E. D. OSTREHAN; Thame, Oxon.
Mr. F. BATHE; 5, Montgomery Road, Sharrow, Sheffield.
Miss M. BARNS, F.Z.S.; 52, Fitzroy Road, Regent's Park, N.W.

CANDIDATES FOR ELECTION.

Mr. HENRY DART; 53, Richmond Road, Kingston-on-Thames.
Proposed by Dr. CRESWELL.
Sir JOHN DILLWYN-LLEWELYN, Bart., M.A., F.Z.S.; Penllergaer, Swausea.
Proposed by the Hon. and Rev. Canon DUTTON.
Mr. WILLIAM H. WORKMAN, M.B.O.U.; Lismore, Windsor, Belfast.
Proposed by the Hon. Secretary.
Dr. PAUL LEVERKUHN; The Palace, Sophia, Bulgaria.
Proposed by Mr. BONHOTE.
Dr. DAWTREY DREWITT, M.A., F.R.C.P., F.Z.S., M.B.O.U.; 14, Palace Gardens Terrace, Kensington.
Proposed by Mr. MEADE-WALDO.
Mr. W. RADCLIFFE SAUNDERS, F.Z.S., M.B.O.U.;
33, Prince's Square, W.; and
Major F. W. PROCTOR, Downfield, Maidenhead.
Proposed by Mr. SETH-SMITH.

TO BE SOLD FOR THE BENEFIT OF THE SOCIETY'S FUNDS.

Two of the rare Golden-throated Barbets, *Cyanops franklini*; have been in my possession since 17th September last. One is a male, sex of the other doubtful. Good offers invited.

R. PHILLIPPS, 26, Cromwell Grove, West Kensington Park, London, W.

(*Continued on opposite page*).

E. W. LITTLE,
Naturalist & Bird Specialist,
16, Great Quebec Street, Montagu Square, London, W.

PRACTICAL TAXIDERMY.

Animals, Horns, Birds, Fish, Reptiles, all kinds of Curios and Sporting Trophies.

Preserved, Arranged, Mounted, Cleaned or Dressed, by the most recent Scientific Methods, producing results second to nature only.

....**Estimates Free**....

Advice upon the Management of Cage Birds—during illness or accident.

Operations performed with great success from long experience.

TERMS ON APPLICATION.

SUCCESS IN BIRD KEEPING & BREEDING

CAN ONLY BE SECURED BY USING

❖ ABRAHAMS' ❖

WORLD-FAMED

 **Specialities in BIRD FOOD.**

LARGE STOCK OF RARE FOREIGN BIRDS.

HARTZ MOUNTAIN ROLLERS,

Norwich, Yorkshire and Lizard Canaries.

Cock Birds in full Song now in Stock.

ABRAHAMS' TONIC for Diarrhoea and Strengthening Birds.

EVERY DESCRIPTION OF

Cage and Aviary Appliance, Seed, etc., in stock.

For complete Price List apply to—

J. ABRAHAMS, Naturalist
& Importer,

191 & 192, ST. GEORGE STREET EAST,

LONDON, E.

J. ABRAHAMS' is the oldest and most reliable Establishment
in England.



THE JOURNAL OF THE AVICULTURAL SOCIETY.

CONTENTS.

	PAGE
On the Breeding in Captivity of <i>Turnix tanki</i> (with coloured plate), by D. SETH-SMITH, F.Z.S.	317
The late rains and their effect on Bird-life, by E. G. B. MEADE-WALDO, F.Z.S.	324
Eggs of Serin-Finches, by A. G. BUTLER, Ph.D.	327
REVIEWS—	
“Parrakeets”	329
“St. Kilda”	330
“Hints on Cage-Birds”	331
“Fancy Waterfowl”	331
CORRESPONDENCE, NOTES, ETC.—	
Grey Parrot biting its feathers: Brazilian Hangnest: Demoiselle Cranes: Nesting of the Ruby-throated Humming-bird: The Yellow-rumped Parrakeet: Yellow Sparrows: The Red-mantled Parrakeet: Breeding Rock-pepers and Barnard's Parrakeets: Gouldians: The Scarlet Ibis: Cordon Bleus nesting: Passerine Parrakeets nesting: The Blue Thrush: Some notes on the Liothrix: Prolific Redrumps: Flint- and Shell-grit for Birds: Ornamental Grass for Birds: Javan Maja-finch: Breeding the Many-coloured Parrakeet	332
The Society's Medal	343
Post-mortem Examinations	343

LONDON:

R. H. PORTER, 7, PRINCES ST., CAVENDISH SQUARE, W.

NOTE.—A new volume commences every November.

☛ All Subscriptions should be sent to the Honorary Business Secretary.

THE AVICULTURAL SOCIETY.



All persons wishing to join the AVICULTURAL SOCIETY are requested to communicate with the Hon. Business Secretary.

NOTICES TO MEMBERS.

The Subscription to the Avicultural Society is 10/- per annum, due on the 1st of November in each year, and is payable in advance. The entrance fee is 2.6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

All MSS. for publication in the Magazine (except cases for the Society's Medal), and Books for review, should be addressed to the Editor, Mr. D. SETH-SMITH, Glengarry, Canning Road, Addiscombe, Surrey.

All Queries respecting Birds (except post mortem cases) should be addressed to the Honorary Correspondence Secretary, Dr. A. G. BUTLER, 124, Beckenham Road, Beckenham, Kent.

All other correspondence, cases for the Medal, Subscriptions, and Advertisements, should be sent to the Honorary Business Secretary, Mr. R. PHILLIPPS, 26, Cromwell Grove, West Kensington Park, London, W. Any change of address should be at once notified to him.

Advice is given, *by post*, by members of the Council to members of the Society, upon all subjects connected with Foreign and British birds. All queries are to be addressed to the Hon. Correspondence Secretary and should contain a penny stamp. Those marked "Private" will not be published.

The Magazine is published by Mr. R. H. PORTER (7, Princes Street, Cavendish Square, W.) to whom all orders for extra copies, back numbers, and bound volumes (accompanied by remittance) should be addressed.

Cases for binding Vol. VIII. can now be obtained, post free and carefully packed, for 1/3 each, from the Publisher, who also undertakes the binding of the Magazine (including case) for 2/-, plus packing and postage, =8d.

BOUND COPIES OF THE "AVICULTURAL MAGAZINE."

The following can be obtained from the Publisher at the prices given below. Postage 6d. per volume extra :

Vol. II., to members, 6/-; to the public, 8/6.

Vols. V. to VII., 10/6 each to members; 12/6 each to the public.

Vol. VIII., 14/- to members; 17/6 to the public.

Back monthly numbers 1/6 each, by post 1/7.

Vols. I., III. & IV., are out of print. Second-hand copies sometimes reach the Publisher, to whom application should be made.

(Continued on page iii. of cover)



THE JOURNAL OF THE AVICULTURAL SOCIETY.

CONTENTS.

	PAGE
The Racket-tailed Parrot (<i>with coloured plate</i>)	345
Honey-eaters, by A. J. CAMPBELL (<i>with two plates and other illustrations</i>)	347
The Influence of Diet on the Avian Death-rate, by W. GEO. CRESWELL, M.D., L.R.C.P., F.Z.S.	354
Waxwing Nesting in a British Aviary, by REGINALD PHILLIPPS	357
The Black-breasted or Rain Quail, by L. M. SETH-SMITH, B.A.	366
REVIEWS—	
“The Birds of Tennyson”	369
“British Birds in Captivity”	369
CORRESPONDENCE, NOTES, ETC.—	
Heron-breeding in Tunis: Rosy Pastors in London: Ornamentation of Mouth in young birds: Longevity of a Cockatoo: German Bird-dealers and Fanciers: The eggs of the Grey Singing-finch, etc.: Amherst's and Golden Pheasants: Aviary Notes	370
The Election for the Council...	376
The Society's Medal	377
Post-mortem Examinations	377

LONDON:

R. H. PORTER, 7, PRINCES ST., CAVENDISH SQUARE, W.

NOTE.—A new volume commences every November.

II.

☛ All Subscriptions should be sent to the Honorary Business Secretary.

THE AVICULTURAL SOCIETY.



Persons wishing to join the AVICULTURAL SOCIETY are requested to communicate with the Hon. Business Secretary.

NOTICES TO MEMBERS.

The Subscription to the Avicultural Society is 10/- per annum, due on the 1st of November in each year, and is payable in advance. The entrance fee is 2/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

All MSS. for publication in the Magazine (except cases for the Society's Medal), and Books for review, should be addressed to the Editor, Mr. D. SETH-SMITH, Glengarry, Canning Road, Addiscombe, Surrey.

All Queries respecting Birds (except post mortem cases) should be addressed to the Honorary Correspondence Secretary, Dr. A. G. BUTLER, 124, Beckenham Road, Beckenham, Kent.

All other correspondence, cases for the Medal, Subscriptions, and Advertisements, should be sent to the Honorary Business Secretary, Mr. R. PHILLIPS, 26, Cromwell Grove, West Kensington Park, London, W. Any change of address should be at once notified to him.

Advice is given, *by post*, by members of the Council to members of the Society, upon all subjects connected with Foreign and British birds. All queries are to be addressed to the Hon. Correspondence Secretary and should contain a penny stamp. Those marked "Private" will not be published.

The Magazine is published by Mr. R. H. PORTER (7, Princes Street, Cavendish Square, W.) to whom all orders for extra copies, back numbers, and bound volumes (accompanied by remittance) should be addressed.

Cases for binding Vol. VIII. can be obtained, post free and carefully packed, for 1/3 each, from the Publisher, who also undertakes the binding of the Magazine (including case) for 2/-, plus packing and postage,=8d.

BOUND COPIES OF THE "AVICULTURAL MAGAZINE."

The following can be obtained from the Publisher at the prices given below. Postage 6d. per volume extra :

Vol. II., to members, 6/-; to the public, 8/6.

Vols. V. to VII., 10/6 each to members; 12/6 each to the public.

Vol. VIII., 14/- to members; 17/6 to the public.

Monthly numbers 1/6 each, by post 1/7.

Vols. I., III. & IV., are out of print. Second-hand copies sometimes reach the Publisher, to whom application should be made.

(Continued on page iii. of cover)

NEW SERIES.

MONTHLY.

OCTOBER, 1903.

Vol. 1. No. 12

Price 1s 6d.

Members' Annual Subscription, 10 -; payable in advance.



THE JOURNAL OF THE AVICULTURAL SOCIETY.

CONTENTS.

	PAGE
The Silver-eared Mesia (<i>with coloured and uncoloured plates</i>) by REGINALD PHILLIPPS	379
On Breeding the Demoiselle Crane in Captivity, by W. H. ST. QUINTIN, F.Z.S.	390
Nesting of the White-fronted Dove, by Miss R. ALDERSON	393
Doves eating Insects and Worms, by A. G. BUTLER, Ph D.	397
Reeve Breeding in Captivity, by W. H. ST. QUINTIN, F.Z.S.	400
REVIEW—"British Birds' Eggs"	401
CORRESPONDENCE, NOTES, ETC.—	
Breeding Seriu-finches: Rare African Waxbills: Flamingoes:	
Fresh Ants' eggs: Mynah and Cockatoo: An interesting hybrid:	
Nesting Notes: The Rev. C. D. Farrar's record: The Black-	
breasted Quail: The Racket-tailed Parrot	402
The Society's Medal	408
Post-mortem Examinations	409
The Election of the Council	410
Index	411

LONDON:

R. H. PORTER, 7, PRINCES ST., CAVENDISH SQUARE, W.

NOTE.—A new volume commences every November.

II.

☛ All Subscriptions should be sent to the Honorary Business Secretary.

THE AVICULTURAL SOCIETY.



Persons wishing to join the AVICULTURAL SOCIETY are requested to communicate with the Hon. Business Secretary.

NOTICES TO MEMBERS.

The Subscription to the Avicultural Society is 10/- per annum, due on the 1st of November in each year, and is payable in advance. The entrance fee is 10/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

All MSS. for publication in the Magazine (except cases for the Society's Medal), and Books for review, should be addressed to the Editor, Mr. D. SETH-SMITH, Glengarry, Canning Road, Addiscombe, Surrey.

All Queries respecting Birds (except *post mortem* cases) should be addressed to the Honorary Correspondence Secretary, Dr. A. G. BUTLER, 124, Beckenham Road, Beckenham, Kent.

All other correspondence, cases for the Medal, Subscriptions, and Advertisements, should be sent to the Honorary Business Secretary, Mr. R. PHILLIPS, 26, Cromwell Grove, West Kensington Park, London, W. Any change of address should be at once notified to him.

Advice is given, *by post*, by members of the Council to members of the Society, upon all subjects connected with Foreign and British birds. All queries are to be addressed to the Hon. Correspondence Secretary and should contain a penny stamp. Those marked "Private" will not be published.

The Magazine is published by Mr. R. H. PORTER (7, Princes Street, Cavendish Square, W.) to whom all orders for extra copies, back numbers, and bound volumes (accompanied by remittance) should be addressed.

Cases for binding Vol. I., New Series, of the Magazine (in art cloth, with gold block on side) can be obtained from the Publisher, post free and carefully packed, at 1/6 each; or the Publisher will undertake the binding of the Volume for 2/6, plus 8d. for packing and postage. All orders must be accompanied by a remittance in full; and Members are requested to state whether they want the wrappers and advertisements bound in at the end or not.

BOUND COPIES OF THE "AVICULTURAL MAGAZINE."

The following can be obtained from the Publisher at the prices given below. Postage 6d. per volume extra:

Vol. II., 6/- to members; 8/6 to the public.

Vols. V. to VII., 10/6 each to members; 12/6 each to the public.

Vol. VIII., 14/- to members; 17/6 to the public.

Vol. I., New Series, 16/- to members; 21/- to the public.

Monthly numbers 1/6 each, by post 1/7.

Vols. I., III. & IV., are out of print. Second-hand copies sometimes reach the Publisher, to whom application should be made.

(Continued on page iii. of cover)

III.

NOTICES TO MEMBERS—(Continued from page ii. of cover).

NEW MEMBERS.

Major TRESTRAIL, F.R.G.S.; Southdale, Clevedon.
The Very Rev. Canon VERE; 21A, Solio Square, W.
Miss MADELINE WIGRAM; King's Gatchell, Taunton.
Mr. M. STEINBERG; 578, West Street, Durban, Natal.

CANDIDATES FOR ELECTION.

The Lady JULIA FOLLETT; Woodside, Old Windsor.
Proposed by Mr. ST. QUINTIN.
Mrs. HENRY BROMET; Highfield, Tadcaster.
Proposed by The Honble. M. C. HAWKE.
Mr. J. F. OCHS, F.Z.S.; St. Ann's Hill, Chertsey, Surrey; *and*
Mr. J. BATHGATE; c/o Messrs Shirager & Co., Dalhousie Square, Calcutta
Proposed by Mr. FRANK FINN.
Mr. HARRY C. OBERHOLSER, Biological Survey, Department of Agriculture;
Washington, D. C., U. S. A.; *and*
Mr. J. WIGLESWORTH, M.D., M.B.O.U.; Rainhill, Lancs. *and*
Mr. GEORGE W. LITTLE, M.D.; 47, Ridge Street, Glens Falls, N. Y.,
U. S. A.; *and*
Mr. I. P. ROSWELL; 6 & 8, Brattle Square, Boston, Mass., U.S.A.
Proposed by the Hon. Business Secretary.
Mrs. ARKWRIGHT; Sutton Scarsdale, Chesterfield; *and*
Mr. C. COCKBURN; Sutton Rock, Chesterfield; *and*
Mr. H. JONES; 13, Commercial Road, Ipswich.
Proposed by The Honble. GERALD LASCELLES.
Mr. THOMAS PARKIN, M.A., F.Z.S., M.B.O.U.; Fairseat, High Wickham,
Hastings. *Proposed by Mr. BONHOTE.*

MEMBERS' SALE AND EXCHANGE COLUMN.

The charge for private advertisements is one penny for every four words. Names and addresses of advertizers must be paid for. Each statement of price, such as 3/6, is counted as one word. Every advertisement must be prepaid, and MUST reach the Secretary not later than the 19th of each month. The Council reserve the right of refusing any advertisement they may consider undesirable.

Redrump Parrakeets:—Unrelated pairs 25/-, or, singly, cocks 13/-, hens 15/-; fine healthy birds bred this year in outdoor aviaries.

H. W. MATHIAS, Thames Ditton, Surrey.

What offers, in foreign small finches or cash, for tame pair of Canary-winged Courees; feed from hand.

Mrs. HAMILTON, Bannerdown House, Bathleaston, Bath.

Two pairs Red-head Gould's finches, one pair Black-heads, also several this season's young birds, cheap to clear, room wanted. Young White Javas, slightly marked, 5/- pair: outdoor aviaries.

Miss E. BAMFORD, The Leys, Bedford.

(Continued on opposite page).

E. W. LITTLE,
Naturalist & Bird Specialist,
16, Great Quebec Street, Montagu Square, London, W.

PRACTICAL TAXIDERMY.

Animals, Horns, Birds, Fish, Reptiles, all kinds of Curios and Sporting Trophies.

Preserved, Arranged, Mounted, Cleaned or Dressed, by the most recent Scientific Methods, producing results second to nature only.

....**Estimates Free**....

Advice upon the Management of Cage Birds—during illness or accident.

Operations performed with great success from long experience.

TERMS ON APPLICATION.

SUCCESS IN BIRD KEEPING & BREEDING

CAN ONLY BE SECURED BY USING

❖ ABRAHAMS' ❖

WORLD-FAMED

Specialities in BIRD FOOD.

LARGE STOCK OF RARE FOREIGN BIRDS.

HARTZ MOUNTAIN ROLLERS,

Norwich, Yorkshire and Lizard Canaries

Cock Birds in full Song now in Stock

ABRAHAMS' TONIC for Diarrhoea and Strengthening Birds.

EVERY DESCRIPTION OF

Cage and Aviary Appliance, Seed, etc., in stock.

For complete Price List apply to—

J. ABRAHAMS, Naturalist
& Importer,

191 & 192, ST. GEORGE STREET EAST,

LONDON, E.

J. ABRAHAMS' is the oldest and most reliable Establishment
in England.

III.

NOTICES TO MEMBERS—(Continued from page ii. of cover).

NEW MEMBERS.

- The Lady HARRIET WARDE; Knotley Hall, Tunbridge.
Mrs. FREDERICK NORTH; 8, Bryanston Street, W.
Mr. WILLIAM FAWCETT MOORE; 18, Albany Street, Edinburgh.
Capt. GEORGE E. SHELLEY, F.Z.S., M.B.O.U., etc.; 39, Egerton Gardens, S.W.
Mr. JOSEPH I. S. WHITAKER, F.Z.S., M.B.O.U.; Malfitano, Palermo, Sicily.
Mr. W. P. STARK; Hillstead, Basingstoke.
The Honble. FLORENCE AMHERST; Didlington Hall, Brandon.
Miss IVENS; 37, Hartington Road, West Ealing.
Mrs. FFOULKES; St. Melangell, Brighton Road, Rhyl.
Miss FURNEAUX; 35, Banbury Road, Oxford.
Mr. W. E. DE WINTON, F.Z.S.; Zoological Society's Gardens, Regent's Park, London.
Mrs. REGINALD HILL; Holfield Grange, Coggeshall, Essex.
Mrs. OSWALD WEBBER; Marlborough House, Pinhoe, Devonshire.

CANDIDATES FOR ELECTION.

- Major TRESTRAIL, F.R.G.S.; Southdale, Clevedon.
Proposed by Dr. A. G. BUTLER.
The Very Rev. Canon VERE; 21A, Solio Square, W.
Proposed by Mrs. GREGORY.
Miss MADELINE WIGRAM; King's Gatchell, Taunton.
Proposed by Miss F. E. WIGRAM.
Mr. M. STEINBERG; 578, West Street, Durban, Natal.
Proposed by Mr. CARRICK.

MEMBERS' SALE AND EXCHANGE COLUMN.

The charge for private advertisements is one penny for every four words. Names and addresses of advertizers must be paid for. Each statement of price, such as 3/6, is counted as one word. Every advertisement must be prepaid, and MUST reach the Secretary not later than the 19th of each month. The Council reserve the right of refusing any advertisement they may consider undesirable.

- Aviary-bred Californian Quails, 15/- pair; ditto Redrumps, remarkably fine birds, 30/- pair. Mrs. CONNELL, The Orchard, Brockenhurst.
Hen Red-head Gould's finch, bred in aviary last year, perfect, 25/-; also pair Black-head Gould's, aviary bred.
Miss E. BAMFORD, The Leys, Bedford.

(Continued on opposite page).

E. W. LITTLE,
Naturalist & Bird Specialist,
16, Great Quebec Street, Montagu Square, London, W.

PRACTICAL TAXIDERMY.

Animals, Horns, Birds, Fish, Reptiles, all kinds of Curios and Sporting Trophies.

Preserved, Arranged, Mounted, Cleaned or Dressed, by the most recent Scientific Methods, producing results second to nature only.

....**Estimates Free**....

Advice upon the Management of Cage Birds—during illness or accident.

Operations performed with great success from long experience.

TERMS ON APPLICATION.

SUCCESS IN BIRD KEEPING & BREEDING

CAN ONLY BE SECURED BY USING

ABRAHAM'S

WORLD-FAMED

Specialities in BIRD FOOD.

LARGE STOCK OF RARE FOREIGN BIRDS.

HARTZ MOUNTAIN ROLLERS,

Norwich, Yorkshire and Lizard Canaries

Cock Birds in full Song now in Stock

ABRAHAM'S TONIC for Diarrhoea and Strengthening Birds.

EVERY DESCRIPTION OF

Cage and Aviary Appliance, Seed, etc., in stock.

For complete Price List apply to—

J. ABRAHAM'S, Naturalist
& Importer,

191 & 192, ST. GEORGE STREET EAST,

LONDON, E.

J. ABRAHAM'S is the oldest and most reliable Establishment
in England.

III.

NOTICES TO MEMBERS—(*Continued from page ii. of cover*).

NEW MEMBERS.

Lady ADELAIDE DAWNAY; Brampton House, Northampton.

Miss MARY EGERTON; Terrington House, York.

Mr. D. S. MORSE; Bank of Ireland, Mount Bellew.

Miss FLORENCE E. WIGRAM; Chesnut Lodge, Cobham, Surrey.

Mr. C. WILLIAM BEEBE; Curator of Ornithology, New York Zoological Park, New York City.

Mr. H. R. FINN; 62, Alma Road, St. Albans.

Mr. H. E. ATTEWELL; Merriebank, Kingston, Jamaica.

Mr. P. PEIR; 50, Bondi Road, Waverley, Sydney, New South Wales.

Miss CALVERLEY-RUDSTON; Allerthorpe Hall, York.

CANDIDATES FOR ELECTION.

The Lady HARRIET WARDE; Knotley Hall, Tunbridge; *and*

Mrs. FREDERICK NORTH; 8, Bryanston Street, W.

Proposed by The Lady LOUISA FEILDING.

Mr. WILLIAM FAWCETT MOORE; 18, Albany Street, Edinburgh.

Proposed by Captain TWEEDIE.

Capt. GEORGE E. SHELLEY, F.Z.S., M.B.O.U., etc.; 39, Egerton Gardens, S.W. *Proposed by* Dr. A. G. BUTLER.

Mr. JOSEPH I. S. WHITAKER, F.Z.S., M.B.O.U.; Malfitano, Palermo, Sicily. *Proposed by* the Hon. Business Secretary.

Mr. W. P. STARK; Hillstead, Basingstoke.

Proposed by Mr. GRÖNVOLD.

The Honble. FLORENCE AMHERST; Didlington Hall, Brandon.

Proposed by Mr. CRESSWELL.

Miss IVENS; 37, Hartington Road, West Ealing.

Proposed by Miss R. ALDERSON.

Mrs. FFOULKES; St. Melangell, Brighton Road, Rhyl.

Proposed by Mr. FASEY.

Miss FURNEAUX; 35, Banbury Road, Oxford.

Proposed by Mr. OGLE.

Mr. W. E. DE WINTON, F.Z.S.; Zoological Society's Gardens, Regent's Park, London. *Proposed by* Mr. E. G. B. MEADE-WALDO.

Mrs. REGINALD HILL; Holfield Grange, Coggeshall, Essex.

Proposed by Miss FLORENCE WIGRAM.

Mrs. OSWALD WEBBER; Marlborough House, Pinhoe, Devonshire.

Proposed by Miss CALVERLEY-RUDSTON.

(*Continued on opposite page*).

E. W. LITTLE,
Naturalist & Bird Specialist,
16, Great Quebec Street, Montagu Square, London, W.

PRACTICAL TAXIDERMY.

Animals, Horns, Birds, Fish, Reptiles, all kinds of Curios and Sporting Trophies.

Preserved, Arranged, Mounted, Cleaned or Dressed, by the most recent Scientific Methods, producing results second to nature only.

....**Estimates Free**....

Advice upon the Management of Cage Birds—during illness or accident.

Operations performed with great success from long experience.

TERMS ON APPLICATION.

SUCCESS IN BIRD KEEPING & BREEDING

CAN ONLY BE SECURED BY USING

ABRAHAMS'

WORLD-FAMED

 **Specialities in BIRD FOOD.**

LARGE STOCK OF RARE FOREIGN BIRDS.

HARTZ MOUNTAIN ROLLERS,

Norwich, Yorkshire and Lizard Canaries

Cock Birds in full Song now in Stock

ABRAHAMS' TONIC for Diarrhoea and Strengthening Birds.

EVERY DESCRIPTION OF

Cage and Aviary Appliance, Seed, etc., in stock.

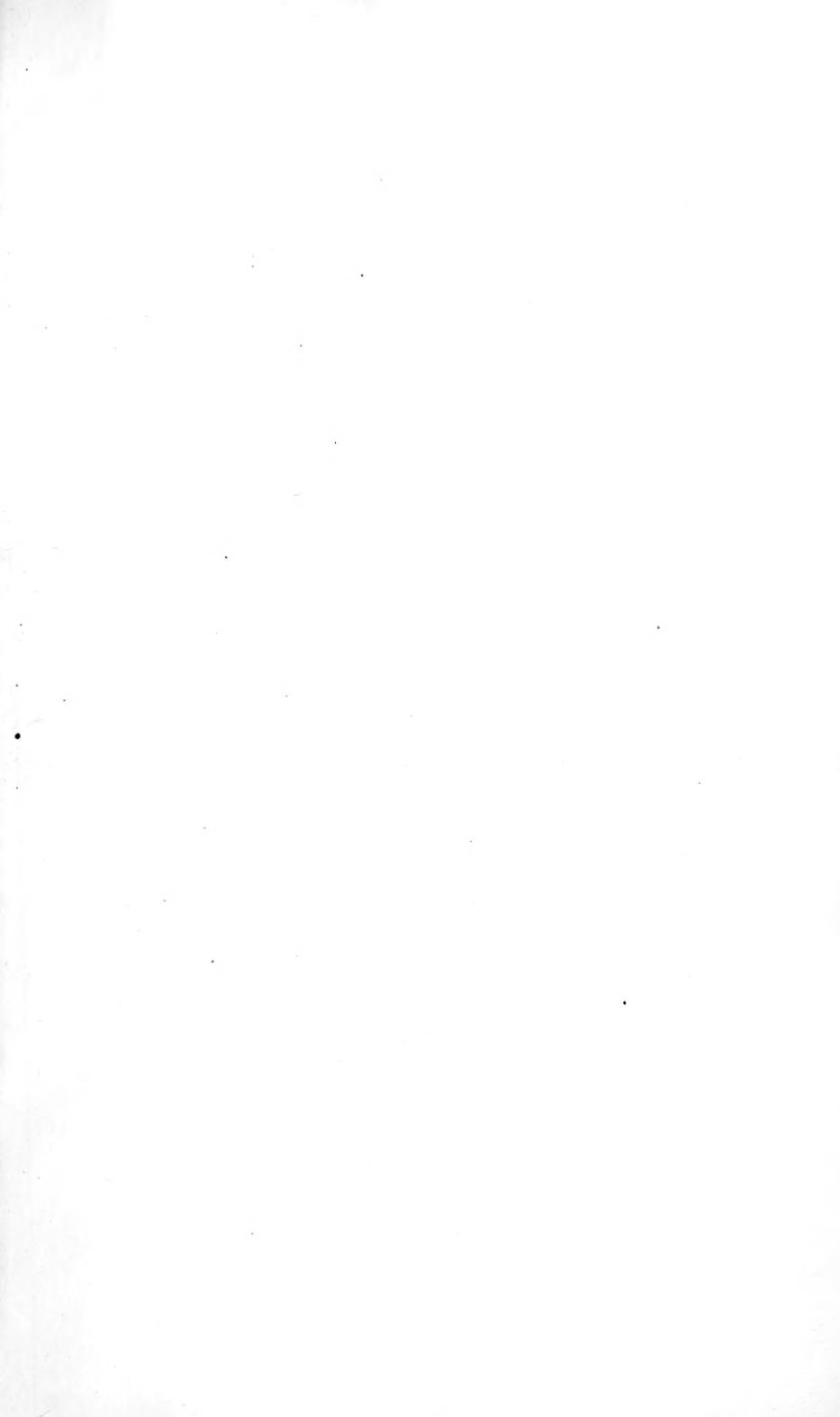
For complete Price List apply to—

J. ABRAHAMS, Naturalist & Importer,

191 & 192, ST. GEORGE STREET EAST,

LONDON, E.

J. ABRAHAMS' is the oldest and most reliable Establishment in England.







8000

JAN 18 1979



AMNH LIBRARY



100116409